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THE RUBBER INDUSTRY STUDY

By
W. H. Cross
G. S. Earseman
J. H. Lenaerts

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INDUSTRY STUDIES SECTION
February, 1936

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F O R E W O R D

This report on "The Rubber Industry Study" was prepared by W. H. Cross, G. S. Earseman and J. H. Lenaerts of the Industry Studies Section, M. D. Vincent in charge.

This study was undertaken chiefly for the purpose of recording the formulation, operation and effect of provisions in the rubber codes affecting prices, particularly the emergency price provisions and the minimum price regulations established in the Retail Tire Trade.

In order to provide a background of understanding of the problems involved, this report contains (a) a survey of the industry as to its extent, its relationships with workers, users and related industries, and its long record of unprofitability, and (b) the major and special problems of the industry, foreign domination of raw materials, excess capacity, rapid technological developments, limitation of markets, price instability, and industry discord.

Four approved codes applied to the Rubber Industry and Trade. Three of these, the code for the Rubber Tire Manufacturing Industry, that for the Rubber Manufacturing Industry (other than tires) and that for the Retail Rubber Tire and Battery Trade, are dealt with in this report. The code for the Reclaimed Rubber Manufacturing Industry is not treated here. Statistical materials contained in this report were compiled by the study unit and were not checked by the Statistical Section.

Limitations of time and personnel have prevented as thorough a pre-publication review of the manuscript as the Division would have wished to make. There remains a difference of opinion between the reviewer and the authors as to whether the authors are too severe in their criticism of the NRA, the Code Authority, and Industry Member participation in the administration of code provisions. The reviewer holds that it is not reasonable to expect that the long-standing and involved problems of the industry could be adequately met in the short time in which these codes were in effect.

At the back of the report a brief statement of the studies undertaken by the Division of Review will be found.

L. C. Marshall,
Director, Division of Review.

February 24, 1936

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SUMMARY OF FINDINGS

The rubber industry in America includes the manufacture of products in which rubber, an import, is an important constituent. The industry dates from 1839 when the process of vulcanizing rubber was discovered by an American inventor. Among the earlier and still important products are rubber footwear, waterproof clothing and hard rubber. To these American ingenuity has added hose, belting, packing and valves, heels and soles, drug and sanitary sundries, floor coverings, toys, and novelties and vehicle tires. Thus the use of rubber is extended into a wide field of human activity.

The development of the automotive industry created a new field for rubber, the motor vehicle tire. This was a free market in that demand was created without the usual cost to the industry of pioneering distribution and use of products. The field was very attractive to manufacturers and investors. During the period from 1900 to 1930 some 600 concerns essayed the manufacture of tires. Of these only about 30 remain active today.

By 1910 motor tires were the most important product of the industry and have continued so. Other rubber manufacture is carried on in about 400 establishments. The annual value of rubber products exceeded a billion dollars in 1919 and 1920, and again from 1925 to 1929. There were 150,000 wage earners in the industry during the latter period. Hourly and annual earnings of workers were high compared to other industry, particularly so in the tire division. Industrial relations had been harmonious.

The chief favorable aspect of the industry is ability to produce merchandise in great volume and of continually improved quality. The record of technical progress in tires stands as a remarkable achievement.

Yet this great industry, at the inception of N.R.A., had gone through a decade of almost profitless operation. In addition a quarter of a billion dollars of new capital had been poured into the industry for unwarranted expansion of facilities, for recouping losses and unearned dividends. This period had been marked by great mortality among small enterprises and concentration in fewer and larger establishments. Declining production and technological change were displacing labor and causing unemployment despite shortening of hours to share the work. Continued unprofitability prevented return to investors and was rapidly undermining the security of workers.

The unprofitability of the industry is in part due to wide fluctuations in supply and price of rubber under foreign control and manipulation. Another factor is the burden of excess productive capacity. There was unwarranted expansion by the large companies between 1920 and 1929. Export business has been lost and American capital has gone abroad to construct plants to complete in foreign markets. Domestic production has declined, due to changes in style and custom, to greatly increased life of products in use, and to depression.

But the chief cause of losses has been competition within the industry and trade, evidencing itself in violent and costly price wars among continually changing channels of distribution. The industry was far from facing the forces of depression with a united front.

The principal problem presented to N.R.A. in codification of the industry, was to stabilize conditions of competition so as to provide greater security for those engaged in it as workers or as owners. It was obvious that even a 25 hour week would not restore employment levels of 1929 with the current capacity of the country to absorb products of the industry. The labor standards proposed in codes were readily agreed to by the Industry and assured some re-employment and considerable increase in wage rates in the lower brackets. The record of the industry in making equitable adjustment in wages above the minimum was excellent. Average hourly rates increased steadily during the codal period.

However, the formulation and administration of code provisions for marketing standards presented a long drawn out struggle by individuals and groups to preserve or to outlaw practices which they believed to have important competitive advantage or disadvantage.

Proposals looking to marketing stabilization which were advanced by industry groups included resale price maintenance, allocation of production, mandatory uniform accounting, and cost recovery, price differentials for specified classifications of producers and consumers and open price filing.

N R. A's efforts to provide stability included the approval of uniformminimum labor standards, trade practice rules requiring ordinary standards of honesty in competition, and varying methods of cost recovery, publicity of prices, and minimum sale prices in different divisions of the industry.

Because of fluctuations in the price of crude rubber, the industry felt strongly that mandatory cost recovery required use of current replacement costs of materials. Crude rubber prices were rising rapidly. Large well-financed manufacturers had bought well in advance at low prices, while small companies' resources usually permitted buying only as needed and at current prices.

This N.R.A. refused to approve, as a matter of policy. When the uniform accounting manual and cost formula was approved for the Rubber Manufacturing Industry (other than tires), N.R.A. stipulated the use of either cost or market price on materials, whichever was lower. This did not satisfy the industry at all. The tire manfacturing division refused to accept the stipulation and forthwith ceased any effort to secure approval of a cost control plan.

Open price filing was approved in several divisions and met with varying degrees of success as a price stabilizing device. In the rubber footwear division difficulties arose due to four members refusing to comply. This case was referred to the Federal Trade Commission for determination, and the ensuing delay rendered the pro-

vision undesirable to the complying members, it was abandoned and the provision stayed by N.R.A. In the heel and sole division, the industry requested that the provision be stayed. Because of a price war members had completely lost faith in one another, in the filing requirements, and in the quality of compliance secured. In the mechanical goods division the device was applied so vigorously and effectively by the Divisional Code Authority as to result in charges of illegal combination being brought against them both by N.R.A. and before the Federal Trade Commission. In the tire division, the partial price filing provided for proved an entirely ineffective instrument for price publicity or the improvement of competitive conditions.

The experience with mandatory costing practice and cost recovery, open price filing and customer classifications, indicates that they would not have been effective price stabilizing instruments in the tire division, had they been put into practice there. Discord and intensity of price competition were greater in the tire division than in other divisions of the Industry, where these devices were tested. Difficulty and delay in enforcement with the machinery provided crippled their operation when the point at issue was an important one.

In the tire division of the Industry little was done toward price control among manufacturers after the disapproval of the replacement cost principle and their abandonment of efforts to secure approval of mandatory cost formula. A separate code for tire retailers was approved and an effort made to curb destructive price cutting under its provisions.

An emergency due to destructive price-cutting was declared to exist in the retail tire trade and minimum prices and other regulations of selling practice were imposed.

Some of the regulations were ill-advised and produced controversy and disrespect for the provisions in general. The restriction upon guarantees stayed but the controversy over it exaggerated the importance of the question and brought on a worse condition than existed before restriction was attempted.

Minimum prices did not protect the small retailer or the small manufacturer as they were meant to do. Large manufacturers and distributors immediately made the minimum price the going price. This was unprofitable to the small dealer, as in fact it was to the large one who perhaps could stand it better and with one price for all there was a marked diversion of business to the nationally advertised lines of large manufacturers. This brought complaint from small manufacturers and private brand distributors as well.

While some increases in prices of low grade tires were brought about, and prices to fleet owners and governmental agencies were brought more in line by the fixed minimum prices, the mass of individual users bought tires as cheaply as or cheaper than they had except during price wars.

Lack of efficient enforcement brought a breakdown of compliance and was followed by unethical and evasive practices even on the

part of retailers not previously given to such tactics.

The effort to modify the regidity of the program and establish differential levels to remedy the situation resulted in an unwieldy and unenforceable regulation and did not much improve conditions.

The performance of code authorities as governing bodies was not encouraging. Factors which interfered with their success were competitive bias and partizanship, lack of time on the part of company executives, and in one case failure to organize properly or to secure financial support from the Industry.

On the whole, the codes failed to improve competitive conditions in the industry to any considerable extent. This failure was due to discord, to factional disputes and sabotage on the part of industry itself, to inept and ill planned treatment of the outstanding need for more orderly price competition, and to failure of enforcement in important cases.

Developments since the termination of codes have served to emphasize the problems which must be solved if the industry is to enjoy any return of its one time prosperity or maintain even its present status in production or employment.

Disorderly and destructive price competition continued until recently. There has been continued mortality among efficient small enterprises who were without financial resources to continue operations at the profitless levels being maintained. Just recently there has been a cessation of hostilities, probably due chiefly to rising rubber costs. Possibly pressure from disgruntled security-holders has had some effect.

Increased demand, particularly from the automobile manufacturing industry, has increased production and employment in man-hours. Hours of work have been lengthened since the termination of code restrictions and the number of workers has not increased in proportion to man-hours of employment.

While equipment for newly manufactured automobiles stimulates production in the few establishments participating in that business, renewal tire sales in 1935 declined below those in 1934 and no marked increase is expected for the coming year. The practice of retreading tires is increasing and due to the greatly increased life of the product, in increased sale of new cars immediately reflected in increased tire renewal demand. The demand for other rubber goods follows the trend of general business activity very closely.

As a result of restrictions on exports from crude rubber producing countries, and increasing consumption in America, it is evident that our manufacturers will be bidding for rubber in British or European markets with resulting increases in cost. As this stimulates production of reclaimed rubber and generally has a salutary effect upon profits in the industry, such an event would not be entirely unwelcome, though prices to consumers would naturally be increased.

CHAPTER I

INTRODUCTION

1. DEFINITION OF THE INDUSTRY

The Bureau of the Census defines the Rubber Industries Group as comprising three industries, namely,

1. Rubber tires and inner tubes
2. Rubber boots and shoes
3. Rubber goods, other than tires, inner tubes, boots and shoes.

These industries embrace establishments using india rubber or gutta percha as an important constituent of their products of chief value.

Under Codes of Fair Competition there was a different classification of divisions of the Industry, and of the trade marketing to the consumer its product of chief value, tires and tubes. There were four approved Codes, namely:

No. 156-The Rubber Manufacturing Industry
No. 174-The Rubber Tire Manufacturing Industry
No. 377-The Reclaimed Rubber Manufacturing Industry
No. 410-The Retail Rubber Tire and Battery Trade

The Code definition for the Rubber Manufacturing Industry was "the manufacture for sale in the continental United States (including Alaska) of any rubber product or products, expressly excluding, however, all solid and pneumatic tires and pneumatic tubes and tire accessories, and/or tire repair materials, together with such other rubber products as may be specifically covered by another duly approved Code of Fair Competition.

"The term 'Division of the Industry' as used herein, includes the several branches of the Industry which have been or may hereafter be established, as herein below provided, as administrative units, under the provisions of this Code. The Divisions established and defined in Chapters II to X are:

Automobile Fabrics, Proofing, and Backing Division
Rubber Flooring Division
Rubber Footwear Division
Hard Rubber Division
Heel and Sole Division
Mechanical Rubber Goods Division
Sponge Rubber Division
Rubber Sundries Division
Rainwear Division."

The Rubber Tire Manufacturing Industry Code defined the

Industry as: "the manufacture for sale in the continental United States (including Alaska) and sale at wholesale by manufacturers or subsidiaries or affiliates of the same, of solid or pneumatic rubber tires and/or pneumatic rubber tubes, together with such related branches or divisions as may from time to time be included under the provisions of this Code by the President, after such notice and hearing as he may prescribe."

The Reclaimed Rubber Industry was defined as: "the manufacture for sale of reclaimed rubber together with such related branches or sub-divisions as may from time to time be included under the provisions of this Code by the President or the Administrator, after such notice and hearing as he may prescribe."

The Retail Rubber Tire and Battery Trade was defined in the Code as: "the sale or offering for sale to the ultimate consumer and not for resale purposes, of:

(a) Solid or pneumatic rubber tires and pneumatic rubber tubes;
(b) Automotive storage batteries for starting, lighting and/or ignition service and radio receiving storage batteries;
(c) Tire or battery party and accessories;
(d) Automobile rims and wheels in connection with change-over from one type of tire equipment to another;
(e) The servicing of products of the Trade.

2. HISTORY AND DEVELOPMENT OF THE INDUSTRY

The Rubber Industry originated in the United States in 1839 with the discovery of vulcanization by Charles Goodyear. He discovered that by compounding crude rubber with sulphur and applying heat to the mixture, it could be made to take permanent form with any degree of flexibility and hardness desired. Among the earliest products were rubberized clothing, footwear and small articles as balls and erasers.

Rubber footwear remained the article of leading importance in manufacture until about 1909. From 1870 to 1890 the manufacture of hose, belting and other mechanical rubber goods were important factors in the Industry's growth. From 1890 to 1900 carriage and bicycle tires, both solid and pneumatic, were important factors and remained so until superseded by automobile tires. Pneumatic tires for automobiles first appeared about 1896; by 1909 the growth of the automotive industry had made them the leading product of the rubber industry.

In 1914 the Industry was recognized as a "separate schedule" industry by the Census Bureau and data on particular commodities are available only since that date. Detailed data on rubber goods, other than tires and tubes, boots and shoes, have only been recorded since 1921.

The rubber group, then, includes footwear, a relatively old

industry, tires, a comparatively new industry like its parent, the automobile industry, and other rubber goods, a mixture of old, middle aged, and new industries. The new industries are constantly expending, as inventive genius and low prices make rubber adaptable to new uses.

3. DIVERSIFICATION OF PRODUCTS

The extreme diversification of the uses of rubber is due to the unusual number of a special characteristics which it possesses. It is airtight and water tight; it can be made as soft as a glove, or as hard as stone; under abrasion in certain conditions, it will outwear steel; it will stretch but is highly resilient and has extraordinary cushioning qualities; it is chemically inert; and it is a non-conductor of electricity.

With all of these qualities and with the number of uses to which it can be put, the number of items produced in the industry run literally into the tens of thousands.

A large percentage of these items are small. It takes a great many bathing caps, teething rings, rubber sponges, jar rings, toy balloons, rubber shoes or rubber heels to total a million dollars in sales.

But, by way of contrast, a mechanical rubber goods plant will occasionally turn out a conveyor belt weighing 25 tons and selling for many thousands of dollars.

The volume of sales is large in the aggregate, but it is divided among some four hundred establishments with only a limited number of any great size. A few establishments have attained national prominence, either because of large activity in tire production or because they make so many of the different lines of general rubber products that the sum total of their output reaches a substantial figure.

The most favorable characteristic of the Industry, is ability to develop and produce merchandise in great volume and of continually improved quality. The record of technical progress in tires stands as a remarkable achievement. Tire life has steadily increased, due to improvements in design and construction. Except for a slight rise in 1925 and 1926 tire prices have declined steadily since 1920, until 1933. The consumer has undoubtedly derived the entire benefit accurueing from technological change and these factors have brought about a steady and marked decline in dollar volume of business in the tire division.

The most unfavorable aspect of the industry is its long continued record of unprofitability and the futile competition and discord in the industry itself, preventing any concerted effort to right that situation.

Disorderly competition in the industry has evidenced itself in violent and costly price wars. The continued unprofitability,

from this and other causes, now threatens the security of those engaged in the industry, either as workers or as owners.

4. PLAN OF STUDY

The present study of the Industry has been defined as a "study of code administration, plus." It is a study of the problems presented by the Industry to N. R. A. in planning for industrial recovery, the formulation of code provisions to deal with those problems, and the operation and effect of the provisions approved.

Emphasis has been placed on the determination, operation and effect of code provisions relating to price and especially the Declaration of Emergency device, and the establishment of minimum prices in the retail tire trade.

Statistical and technical facts about the Industry have been compiled to show continued unprofitability, the continued integration of the industry into fewer and larger establishments, and the continued mortality of small enterprises.

Unusual and special problems presented, as over-capacity, foreign control of raw material supply and prices, changing channels of distribution, factional conflicts, degeneration of marketing programs into a rout of futile price competition are discussed as they converged to bring about the emergency condition.

The determination and operation of other market stabilizing devices as cost recovery, price filing, etc., are discussed to complete the history of N.R.A. dealings with this problem throughout the Industry.

Further problems which must be faced by the Industry in planning for the future are but touched upon. This Industry must, in the near future, develop greater solidarity and plan carefully if there is to be any degree of prosperity or security for those engaged in it as workers or as owners.

CHAPTER II

ECONOMIC ASPECTS OF THE INDUSTRY

A - SCOPE

1. DECLINING NUMBER OF ESTABLISHMENTS

The number of establishments engaged in the manufacture of rubber products in 1929, according to the Census of Manufactures, as shown in Table I, is estimated at 525, and in 1933, the number is estimated at 408 establishments, a decrease of 117 establishments, or 22.3 per cent. The decrease has not been uniform for the three divisions as the following data will show.

The number of tire manufacturing establishments decreased from 91 in 1929, to 44 in 1933, a decrease of 47 establishments, or 51.6 per cent.

The number of boot and shoe manufacturing establishments decreased from 22 in 1929 to 13 in 1933, a decrease of 9 establishments, or 40.9 per cent.

The number of other rubber manufacturing establishments decreased from 412 in 1929 to 351 in 1933, a decrease of 61 establishments, or 14.8 per cent.

2. UNPROFITABILITY AND SHRINKAGE OF DEMAND AS CAUSES OF DECLINE IN NUMBER OF ESTABLISHMENTS.

The principal causes of the reduction in number of tire factories are probably (1) the unprofitability of the business due to price cutting and inventory losses on raw materials, and (2) the increased intensity of competition due to actual shrinkage in demand for tires.

The business has been unprofitable, even for the largest and most efficient units. The small manufacturers, with limited working capital, have seen this depleted in competition with their well-financed rivals. The decline in demand due to lower automobile production and the increased life of tires in use has heightened the intensity of competition, reduced margins and forced many smaller units into mergers, consolidations, or complete suspension of operations.

Table 1 - Number of Establishments, 1929-1933

Division	1929	1933	Decreases	
			Number	Per Cent
Tires	91	44	47	51.6
Boot and Shoe	22	13	9	40.9
Other Rubber Products	412	351	61	14.8
Total	525	406	117	22.3

Source: U. S. Census of Manufactures

The decline in the number of boot and shoe manufacturing establishments is due (1) partly to the decreased demand for rubber footwear resulting from the changing habits of the American people, and (2) partly to the increased competition of foreign manufacturers. The wide use of the automobile as personal transportation, the prompt removal of snow from the streets in large cities, and the growing indifference to foot protection in stormy weather, have contributed to the decreased demand for rubber footwear. The export market of the American manufacturer has suffered greatly because of the rise of Japan and Czechoslovakia as important factors in the manufacture of rubber footwear, and also because of the growing tendency toward the establishment of a domestic industry in many countries. The domestic market has also been affected by imports of rubber footwear from Japan and Czechoslovakia. The Tariff Commission instituted an investigation in October, 1932, and in February 1933, the rates of 35 per cent assessed on the foreign value of canvas shoes and 25 per cent assessed on waterproof were ordered assessed on the American value in the future. This was the maximum increase permitted by law.

The decline in the number of establishments engaged in the manufacture of other rubber products is perhaps due to the decline in demand for rubber products, and to some extent due to the integration taking place within the Industry.

3. LOCATION OF ESTABLISHMENTS BY AREA AND LACK OF TREND OF MIGRATION TO ANY ONE LOCATION

The Rubber Manufacturing Industry is located chiefly in the East North Central States where, in 1929, according to the Census of Manufactures as shown in Table 2, 34.1 per cent of the total number of establishments were located. The Middle Atlantic and New England States were next in importance with 25.0 per cent and 20.8 per cent respectively.

It will be observed from Table 2 that during the period 1929-1933, there have been changes in the number of establishments in the various districts and some districts have increased in importance. These changes, however, are comparatively small, and do not indicate a migration of the Industry to any one area.

Table 2 - Geographical Location of Establishments
1929-1933

Area	1929		1933		Decrease	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
New England	109	20.8	90	22.1	19	17.4
Middle Atlantic	131	25.0	105	25.7	26	19.8
East North Central	179	34.1	131	32.1	48	26.8
West North Central	22	4.2	16	3.9	6	27.3
South Atlantic	20	3.8	13	3.2	7	35.0
East South Central	8	1.5	4	1.0	4	50.0
West South Central	7	1.3	6	1.5	1	14.3
Mountain	5	.9	2	.5	3	60.0
Pacific	44	8.4	41	10.0	3	6.8
Total	525	100.0	408	100.0	117	22.3

Source: Census of Manufactures
N.B. States comprising the various areas are shown in Table 3.

4. NUMBER OF ESTABLISHMENTS BY STATES

Rubber manufacturing establishments in 1929 and in 1933, as shown in Table 3, were located in 34 states. The principal states and the number of establishments in each in 1929 are as follows: Ohio, 113; Massachusetts 72; New Jersey 55; New York 47; and California 35.

Rubber tire manufacturing establishments in 1929 were found in 21 states, and, in 1933, in 17 states. In 1929 Ohio was the principal state in tire manufacturing with 32 of the total 91 establishments located within its borders. California was second in importance with 7 establishments. In 1933, Ohio was still first in importance with 15 of the total 44 establishments, and California was second with 3 establishments.

Rubber boot and shoe manufacturing establishments in 1929 were located in 8 states with Massachusetts first in importance with 10 of the 22 establishments. Connecticut and Rhode Island were next in importance with 4 and 3 establishments respectively. In 1933, boot and shoe establishments were located in 7 states, with Massachusetts first with 5 of the total 13 establishments, and with Connecticut and New Jersey next with 2 establishments each.

Other rubber manufacturing establishments in 1929 and 1933 were located in 33 states. Ohio was the principal state in 1929 and 1933, with 81 establishments in 1929 and 66 establishments in 1933. Massachusetts was second in importance with 60 and 55 establishments for the corresponding years. New York, New Jersey, California, and Illinois are also important in the manufacture of other rubber products. In many of the other states the manufacture of rubber products is

apparently of minor importance, and, as will be observed from Table 3, there were, in 1933, twelve states with only one establishment each.

Table 3 - Number of Establishments by States
1929-1933

States	1929 Tires	1929 Boots	1929 Other	1929 Total	1933 Tires	1933 Boots	1933 Other	1933 Total
New England	6	17	86	109	3	8	79	90
Maine			2	2			2	2
New Hampshire			1	1			1	1
Vermont								
Massachusetts	2	10	60	72	1	5	55	61
Rhode Island		3	7	10		1	7	8
Connecticut	4	4	16	24	2	2	14	18
Middle Atlantic	14	2	115	131	8	2	95	105
New York	2		45	47	1		38	29
New Jersey	6	1	48	55	3	2	40	45
Pennsylvania	6	1	22	29	4		17	21
East North Central	46	3	130	179	20	3	108	131
Ohio	32		81	113	15		66	81
Indiana	2	1	11	14	1	1	8	10
Illinois	3	1	23	27	1	1	19	21
Michigan	4		9	13	2		7	9
Wisconsin	5	1	6	12	1	1	8	10
West North Central	7		15	22	3		13	16
Minnesota	1		1	2	1		2	2
Iowa	3		3	6	2		1	3
Missouri	1		10	11			9	9
North Dakota								
South Dakota								
Nebraska	2			2				1
Kansas			1	1			1	1
South Atlantic	7		13	20	3		10	13
Delaware			2	2			2	2
Maryland	3		4	7	2		5	7
D. C.								
Virginia	1		3	4			1	1
West Virginia								
North Carolina	2		1	3	1		1	2
South Carolina								
Georgia	1		2	3			1	1
Florida			1	1				
East South Central	2		6	8	1		3	4

Table 3 (continued)

States	1929 Tires	1929 Boots	1929 Other	1929 Total	1933 Tires	1933 Boots	1933 Other	1933 Total
Kentucky			3	3			1	1
Tennessee			1	1			1	1
Alabama	2		1	3	1			1
Mississippi			1	1			1	1
West South Central			7	7			6	6
Arkansas							1	1
Louisiana			1	1			1	1
Oklahoma								
Texas			6	6			4	4
Mountain	2		3	5	1		1	2
Montana								
Idaho								
Wyoming								
Colorado	2		3	5	1		1	2
New Mexico								
Arizona								
Utah								
Nevada								
Pacific	7		37	44	5		36	41
Washington			4	4			2	2
Oregon			5	5			3	3
California	7		28	35	5		31	36
Grand Total	91	22	412	525	44	13	351	408

Source: Census of Manufacture.

5. NUMBER OF WAGE EARNERS

The number of wage earners declined from 149,060 in 1929 to 106,260 in 1933, a decrease of 42,800 or 28.7 per cent. The high point in employment during the period 1926 through 1934, as shown in Table 4, was in 1928 when 149,150 wage earners were employed. The low point occured in 1932 when 90,810 wage earners were employed, a decrease of 58,340 or 39.1 per cent from the high point of 1928. Since 1932, employment has increased and in 1934, there were 120,050 wage earners employed, an increase of 29,240 or 32.2 per cent over the low point of 1932.

6. NUMBER OF WAGE EARNERS BY STATES

Ohio in 1929, as shown in Table 5, employed in tire manufacturing 53,307 wage earners or 65.4 per cent of the total number employed. According to available data, California was second in importance with 5,339 wage earners or 6.4 per cent. Massachusetts was also important in tire manufacturing, but because there were only two establishments in that State, data as to the number of wage earners are not available.

Ohio, in 1933 had strengthened its position in the Industry by employing 35,621 wage earners or 67.3 per cent of total. California showed a slight loss, employing 3,145 wage earners or 5.9 per cent. Data as to other states are not available.

Massachusetts, both in 1929 and in 1933 as shown in Table 5, was the principal state in the number of wage earners engaged in manufacture of rubber boots and shoes. In 1929 Massachusetts employed 11,163 wage earners or 43.5 per cent of the total engaged in rubber boot and shoe manufacture, and, in 1933, employed 8,678 wage earners or 36.9 per cent of the total.

In the manufacture of other rubber products, New Jersey, in 1929 and 1933, as shown in Table 5, ranked first in importance in number of wage earners employed. In 1929, New Jersey employed 7,740 wage earners or 19.2 per cent of the total, and in 1933, employed 7,162 wage earners or 20.3 per cent. Ohio, New York, and Connecticut were also important.

Table 4 - Number of Employees 1926-1935.

Year	Tires		All Other		Total	
	Number	Index	Number	Index	Number	Index
1926	79,770	95.8	61,400	93.3	141,700	94.7
1927	78,150	93.9	63,700	96.8	141,850	95.1
1928	83,150	99.9	66,000	100.4	149,150	100.1
1929	83,260	100.0	65,800	100.0	149,060	100.0
1930	59,760	71.8	55,600	84.6	115,360	77.4
1931	49,130	59.0	50,100	76.1	99,230	66.6
1932	44,710	53.7	46,100	70.1	90,810	60.9
1933	52,960	63.6	53,300	81.0	106,260	71.3
1934	62,150	74.6	57,900	88.1	120,050	80.5
1935 (June)	58,030	69.7	52,900	80.4	110,930	74.4

Source: B. L. S. Data with NRA adjustments to 1933 Census.

Table 5 - Number of Wage Earners by States

1929 - 1933

A - Tire Division

State	1929 Number	1929 Per cent of total	1933 Number	1933 Per cent of Total	Decrease Number	Decrease Per cent
California	5,339	6.4	3,145	5.9	2,194	41.1
Iowa	193	.2	(a)			
New Jersey	2,000	2.4	(a)			
Ohio	55,307	66.4	35,621	67.3	19,686	35.6
Pennsylvania	1,937	2.0	(a)			
Wisconsin	3,922	4.7	(a)			
Other	14,865	17.9	14,210	26.8	655	4.4
Total	83,263	100.0	52,976	100.0	30,287	36.4

B - Boot and Shoe Division

Massachusetts	11,163	43.5	6,678	36.9	4,485	40.2
Other States	14,496	56.5	11,424	63.1	3,072	21.2
Total	25,650	100.0	18,102	100.0	7,557	29.5

C - Other Rubber Goods Division

California	942	2.3	890	2.7	52	5.5
Connecticut	3,200	8.0	2,510	7.1	690	21.6

Table 5 (continued)

C - Other Rubber Goods Division (con.)

State	1929 Number	1929 Per cent of total	1933 Number	1933 Per cent of total	Decrease Number	Decrease Per cent
Illinois	1,496	3.7	1,343	3.8	153	10.2
Indiana	1,333	3.3	997	2.8	336	25.2
Michigan	502	1.3	546	1.6	44	8.8
New Jersey	7,740	19.2	7,162	20.3	578	7.5
Missouri	590	1.5	785	2.2	195	33.1
New York	5,441	13.5	4,072	11.5	1,369	25.2
Ohio	6,707	16.7	5,274	15.0	1,433	21.4
Pennsylvania	2,117	5.3	1,479	4.2	638	30.1
Rhode Island	1,822	4.5	2,979	8.5	1,157	63.5
Texas	98	.2	34	.1	64	65.5
Washington	28		(a)			
Wisconsin	478	1.2	403	1.1	75	15.7
Other States	7,732	19.3	6,731	19.1	1,001	12.9
Total	40,226	100.0	35,205	100.0	5,021	12.5
Grand Total	149,148		106,283		42,865	28.7

(a) Included in other states
Source: Census of Manufactures

7. SHRINKAGE IN INVESTED CAPITAL

In 1929, the capital invested in the Rubber Industry was estimated by the Rubber Manufacturers' Association to have been $842,906,000. In 1933 the Association estimates the capital at $580,858,000, a decrease of $262,048,000 or 31.09 per cent compared with that of 1929.

Among the causes for the decrease in capital investment may be mentioned (1) low prices for finished products, (2) inventory losses, and (3) payment of unearned dividends.

That prices were destructive of capital was admitted by the Rubber Manufacturers' Association in their brief to N. R. A., October 20, 1933, which read as follows:

> "With a productive capacity of $600,000,000, expressed at present prices, and an excess capacity existing since 1928, the pressure on each manufacturer to maintain his sales volume at the expense of others has resulted in a competitive price level which has made it impossible for the Industry, as an industry, to make a net return on its investment for four years."

Another factor affecting the general welfare of the industry is the fluctuation in prices of cotton and rubber, the two basic materials in the manufacture of tires. The values of these materials have gone through wide and frequent fluctuations, and the stability of the tire companies' business and profits has been seriously affected by them. In the interval from 1925 to 1931, the seven major companies took inventory losses of $83,000,000.(*) This situation has seriously affected the stability of the Industry and the general price level.

The third factor contributing to the dissipation of capital has been the payment of unearned dividends. Reports of the Bureau of Internal Revenue show that between 1926 and 1933, the Tire Division of the Rubber Industry paid out in dividends $232,999,197, despite the fact that the net losses of the Tire Division during the same period were $4,791,590, making a total deficit of $237,790,787.

Table 6 shows the estimated capital invested in the two divisions of the Rubber Industry for the five year period, 1929-1933. It will be seen that the tire division represented in 1933 an investment more than twice that of the other rubber goods division. However, it should be stated that these estimates may properly be called "informed estimates", and are subject to correction. No one knows the exact capital invested, and an attempt to estimate the capital invested in the two divisions is made more difficult because most of the tire manufacturers also engage in the manufacture of other rubber products, but in submitting their reports, such manufacturers do not indicate the extent to

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(*) Rubber Manufacturers' Association, Brief, October 20, 1933.

which their capital is invested in each division of the Industry.

On the basis of available data, it appears that the investment in other rubber industry has suffered more severely than that of the tire division. For example, the capital in the other rubber industry decreased from $286,906,000 in 1929 to $161,858,000 in 1933, a decrease of $125,048,000, or 43.6 per cent. On the other hand, the tire investment decreased from $556,000,000 in 1929 to $419,000,000 in 1933, a decrease of $137,000,000, or 32.7 per cent.

Exhibit 1 is a consolidated balance sheet compiled from reports submitted to Bireau of Internal Revenue by companies classified by that Bureau as Tire Manufacturing Companies. It is open to question whether the Industry classifies some of these companies as tire companies.

Table 6 - Estimated Capital Investment,

1929 - 1933

(Thousands of Dollars)

Year	Tire Mfg.	Other Rubber Mfg.	Total Rubber Industry	Decrease from 1929	
				Amount	Per cent
1929	$556,000	$286,906	$842,906	$	
1930	545,000	253,354	798,354	44,552	5.28
1931	490,000	219,000	709,000	133,906	15.89
1932	425,000	185,292	610,292	232,614	27.60
1933	419,000	161,858	580,858	262,048	31.09

Source: Code Application
Rubber Manufacturers' Association, 1933.

8. DECLINING VALUE OF INDUSTRY PRODUCTS, BY CLASSIFICATION

The products of the rubber industry are usually classified into three divisions, namely, tires and tubes, boots and shoes, and all other rubber products. Tires and tubes are the most important division, with other rubber products second, and boots and shoes third. During the period of Code Administration there were two codes for the rubber industry, namely, one for tires and tubes, and one for boots and shoes and all other rubber products. The Code for boots and shoes and other rubber products was sub-divided into nine groups with a divisional Code for each group, as follows: (1) Automobile Fabrics, Proofing and Backing, (2) Rubber Flooring, (3) Rubber Footwear, (4) Hard Rubber, (5) Heel and Sole, (6) Mechanical Rubber Goods, (7) Sponge Rubber,

Addendum:

Tables No. 15, 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29, and Exhibits I, II, III and IV following, are compiled from tabulation sheets and published reports (Statistics of Income) of the Bureau of Internal Revenue, United States Treasury Department.

This material should only be interpreted in the light of explanations and limitations of the sources contained in a communication from the Treasury Department, dated January 27, 1936. Quotations from this communication are included in Appendix II to this Study.

EXHIBIT I

RUBBER TIRE INDUSTRY

CONSOLIDATED BALANCE SHEET 1930 - 1933 INCLUSIVE

	FROM RETURNS SHOWING "NET INCOME"				FROM RETURNS SHOWING "NO NET INCOME"				COMBINED FIGURES OF "NET INCOME" AND "NO NET INCOME"			
	1933	1932	1931	1930	1933	1932	1931	1930	1933	1932	1931	1930
No. of returns submitting balance sheets	26	12	21	19	50	52	44	73	76	64	65	92
ASSETS												
Cash	26,940,360	15,004,333	29,728,535	37,823,535	21,336,114	51,392,405	41,367,652	30,271,049	48,276,474	66,396,738	71,096,187	68,094,584
Notes and accounts receivable	41,733,130	18,518,412	133,817,196	77,769,855	148,139,622	195,554,333	76,638,309	131,127,044	189,872,752	214,072,745	210,455,505	208,896,899
Inventories	58,578,832	26,547,502	62,255,211	79,037,313	69,481,337	79,789,749	66,991,405	114,780,384	128,060,169	106,337,251	129,246,616	193,817,697
Investments, tax-exempt	3,893,348	1,229,470	204,513	839,446	29,305,338	7,533,897	3,597,953	1,855,589	33,198,686	8,763,367	3,802,466	2,725,035
Investments, other than tax-exempt	53,590,397	29,702,405	32,887,491	41,270,821	150,545,862	194,106,654	115,552,116	149,896,932	204,136,259	223,809,059	148,439,607	191,167,753
Capital assets, (less depreciation)	111,219,042	63,639,750	137,881,929	146,191,194	194,673,625	270,469,951	221,100,199	261,435,463	305,892,667	334,109,701	358,982,128	407,626,657
Miscellaneous assets	63,333,921	2,247,455	95,865,136	6,793,236	15,078,273	78,813,023	77,704,866	95,481,922	78,412,194	81,060,478	173,570,004	102,275,158
TOTAL ASSETS	359,289,030	156,889,327	492,640,011	389,725,400	628,560,171	877,660,012	602,952,502	784,878,383	987,849,201	1,034,549,339	1,095,592,513	1,174,603,783
LIABILITIES												
Notes and accounts payable	13,321,471	4,216,055	103,595,380	17,290,391	113,381,814	184,728,409	57,765,715	110,168,766	126,703,285	188,944,464	161,361,095	127,459,157
Bonded debt and mortgages	58,288,085	19,986,477	80,876,471	79,629,855	140,339,975	195,078,198	165,474,223	182,377,790	198,628,060	215,064,675	246,350,694	262,007,645
Miscellaneous liabilities	11,771,927	7,642,341	17,856,564	14,661,560	70,009,419	37,276,723	22,275,353	35,235,391	81,781,346	44,919,064	40,132,917	49,896,951
Capital stock - Preferred	90,433,992	49,517,930	138,964,981	148,220,400	107,442,157	160,147,334	85,322,905	99,331,989	197,876,149	209,665,264	224,287,886	247,552,389
Capital stock - Common	128,260,512	27,241,451	43,186,622	33,357,680	199,275,625	331,867,119	331,571,106	387,950,420	327,536,137	359,108,570	374,757,728	421,308,100
Surplus and undivided profits	57,226,039	48,301,203	109,139,969	96,596,245	71,296,103	69,681,692	22,001,708	37,354,202	128,522,142	117,982,895	131,141,677	133,950,447
Deficit	- 12,996	- 16,130	- 979,976	30,731	- 73,184,922	-101,119,463	-81,418,508	-67,540,175	- 73,197,918	-101,135,593	- 82,398,484	- 67,570,906
Surplus & undivid.profits, (less deficit)	57,213,043	48,285,073	108,159,993	96,565,514	- 1,888,819	- 31,437,771	-59,416,800	-30,185,973	55,324,224	16,847,302	48,743,193	66,379,541
TOTAL LIABILITIES	359,289,030	156,889,327	492,640,011	389,725,400	628,560,171	877,660,012	602,952,502	784,878,383	987,849,201	1,034,549,339	1,095,592,513	1,174,603,783

Source: Tabulation sheets and published reports (Statistics of Income), of the Bureau of Internal Revenue, United States Treasury Department.

\- Represents deficit.

Prepared By: H. L. Wells,
Accounting Unit, NRA,
November, 1935

(8) Rubber Sundries, and (9) Rainwear.

9. VALUE OF PRODUCTS

The total value of products of the rubber industry, as shown in Table 7 and in Chart 1, declined from $1,111,630,000 in 1929 to $468,615,000 in 1933, a decline of $643,015,000 or 57.8 per cent. During the period 1923 through 1933, the peak year in value was 1925, when total production was valued at $1,269,445,000. Every census since then has revealed a shrinkage in value reaching a low point in 1933 with total value as stated above. The decline in total value of production is the result of a decline in both the unit price of individual rubber articles, and the number of such units. With a very few exceptions, the number of rubber articles produced decreased from 1929 through 1934.

Although complete figures are not available, but based on the estimates of the Statistics Section of N.R.A. it is believed that the low point in value of products was reached in 1932. In that year the production of equivalent units was at its lowest point, the cost of materials was lowest, and the number of employees was lowest.

The value of tires and tubes decreased from $676,910,000 in 1929 to $256,513,000 in 1933, a decrease of $420,397,000 or 62.1 per cent. During the period of 1923 - 1933, the high point in value occurred in 1925 with value estimated at $824,548,000. Since that year, every census has revealed a decrease in value, reaching lowest point in the last census, 1933, with production valued as stated above.

The value of boots and shoes decreased from $111,359,000 in 1929 to $41,513,000 in 1933, a decrease of $69,84_,000 or 62.7 per cent. The high point in value of production was in 1923 when products were valued at $134,987,000. The year 1927 very closely approached the peak year of 1923 when production was valued at $133,196,000. Since 1927, value declined rapidly, reaching a low point in 1933 with products valued at $41,513,000. Complete figures are not available for the 1934 production, but it is estimated that value for that year showed an increase over the low of 1933.

The value of other rubber products declined from $323,361,000 in 1929 to $170,589,000 in 1933, a decrease of $152,772,000 or 47.2 per cent. During the period 1923 - 1933, the peak in value occurred in 1925 when production was valued at $324,974,000. The low point was in 1933 with production valued as stated above.

The statistics presented in Table 6 show that the decrease in value from 1929 to 1933 has been greatest in the Boot and Shoe Division whose value decreased 62.7 per cent. Tires and tubes were a close second with a decrease of 62.1 per cent. Other rubber goods showed the least decrease, 47.2 per cent. The showing made by this division is perhaps due to the new uses to which rubber is applied with the resultant increase in production. The changing positions of the three divisions of the Industry as illustrated in Table 7 which shows that the value of other rubber products increased from 29.1 per cent of total value of all rubber products to 36.3 per cent in 1933. During the same period, the value of tires decreased from 60.9 per

cent to 54.9 per cent, while boot and shoe decreased from 10.0 per cent to 8.8 per cent.

Table 7 - Value of Products 1923-1933

(Thousands of Dollars)

Year	Tires		Boots and Shoes		Other Rubber		Total	
	Value	Per cent of total	Value	Per cent of total	Value	Per cent of total	Value	Index (1929 100)
1923	$569,120	59.4	$134,987	14.1	$254,677	26.5	$958,794	86.3
1925	824,548	64.8	119,923	9.6	324,974	25 6	1,269,445	114.2
1927	779,523	63.5	133,196	10.9	313,750	25.6	1,226,479	110.3
1929	676,910	60.9	111,359	10.0	323,361	29.1	1,111,630	100.0
1931	366,865	60.3	48,308	7.9	193,527	31.8	608,700	54.8
1933	256,513	54.9	41,513	8.2	170,589	36.3	468,615	42.2

Source: Census of Manufactures.

10. DECREASING VOLUME OF PRODUCTION OF PNEUMATIC CASINGS

The peak year in the volume of production of pneumatic casings was 1927, when production is estimated at 77,016,000 casings, as shown in Table 8. Yearly, thereafter until 1932 production declined reaching a low point in 1932 with production estimated at 41,352,000 casings, a decrease of 36,684,000 casings or 47.3 per cent.

Since 1932, yearly production has increased and both in 1933 and in 1934 annual production was greater than in the preceding year.

The decreased volume of production is the result of several factors among which may be mentioned, (1) the increased mileage of tires, (2) the decreased volume of automobile production, and (3) loss of export markets.

That the increased mileage of tires was reducing the available market for tires was set forth by the Rubber Manufacturers' Association in their brief filed with the N.R.A. on October 20, 1933, which reads in part as follows:

> "The Industry has consistently improved its product. Therefore the life of a tire has materially increased. On the basis of the number of cars registered, sales of replacement tires per car averaged around two in 1928 and 1929, and only one and one-third in 1932.

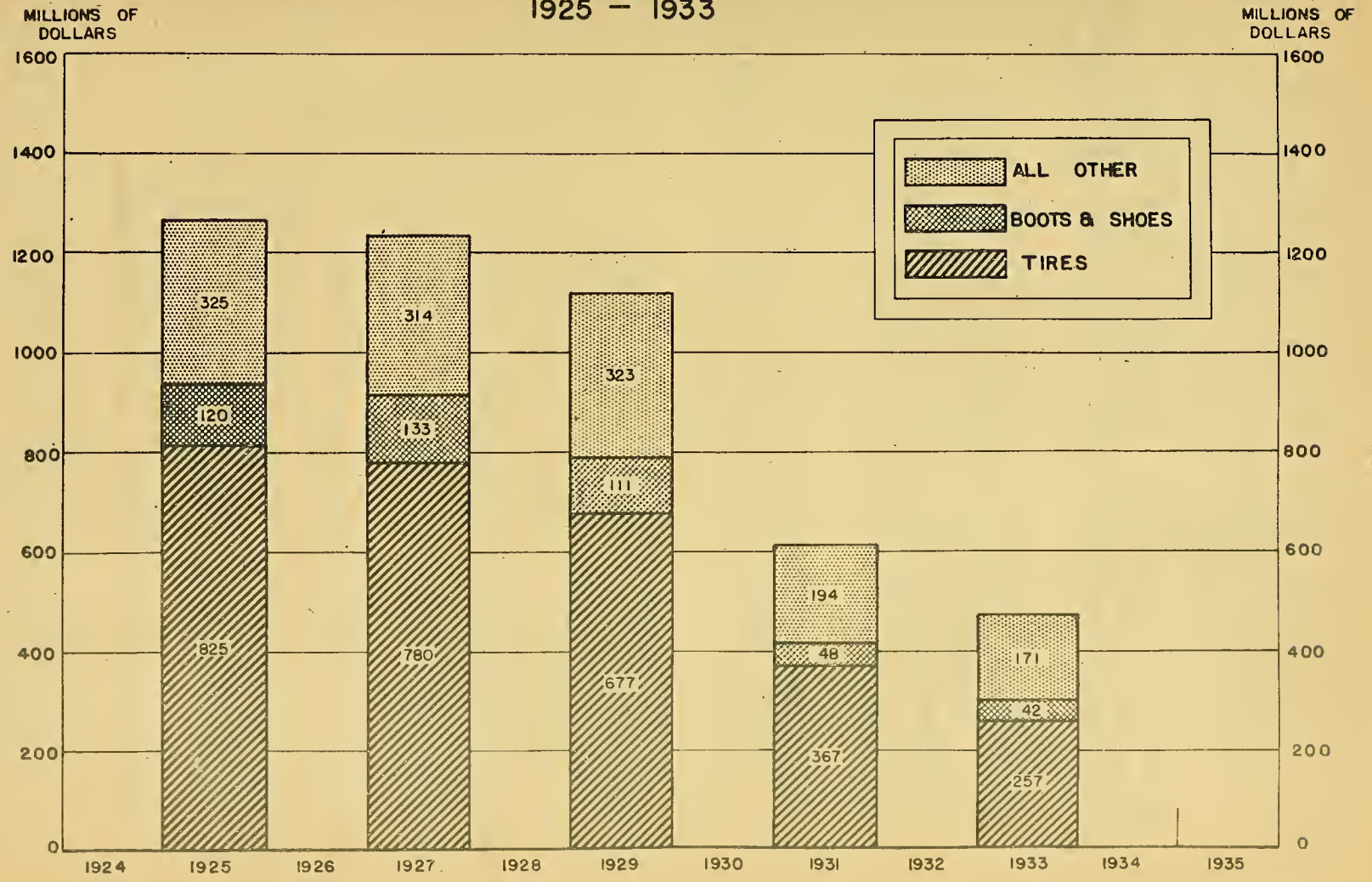
RUBBER MANUFACTURING INDUSTRY

DISTRIBUTION OF TOTAL DOLLAR VOLUME OF BUSINESS

(MILLIONS)

1925 — 1933

9685



SOURCE: U.S. CENSUS OF MANUFACTURES

N. R. A.
DIVISION OF REVIEW
STATISTICS SECTION
NO 351

> In other words, the number of casings and tubes which an automobile needs during its life has materially decreased due to continual improvement in the quality of the tires. That this decrease is due to longer life and not to allowing cars to remain idle is demonstrated by the fact that gasoline consumption has remained at a high level, even though car registrations have diminished."

Expressing the same thought, Mr. Boris Stern, of the Department of Labor, in his study, Labor Productivity in the Automobile Tire Industry (Bulletin No. 585, July, 1933) Bureau of Labor Statistics, stated that:

> ". . .constant improvement in the quality of tires may result eventually in the manufacture of tires that will last as long as the average automobile. In that case, the largest source of the present demand for tires will be automatically eliminated and tire manufacturing will be reduced to a minor part of the automobile industry."

That the decreased volume of automobile production was one of the contributing factors in the plight of the tire industry was also set forth by the Rubber Manufacturers' Association in their brief of October 2[illegible], 1935, as follows:

> "Automobile tires are a secondary product. The demand for them is only as accessory equipment to either a new or an operating automobile. The production and use of automobiles is the limiting factor in the business of tire companies. The reduction in the production of new cars from about 4,000,000 a year in 1928 and 1929, to 1,275,000 in 1932, and an estimated production of 1,800,000 in 1933, has seriously curtailed the original equipment market. Moreover, car registrations have decreased about 10 per cent, and the market for replacement sales has actually decreased."

While the export business is only a small part of the tire manufacturers' sales, in units, it has shown the very considerable decrease of from 2,796,000 pneumatic casings in 1929 to 1,058,000 casings in 1933, a decrease of 62 per cent. The outlook for improvement in the export field is distinctly unfavorable. This subject is discussed more fully in a separate chapter, entitled "Transfer of Capital and Production Abroad."

11. DECREASING VOLUME OF PRODUCTION OF RUBBER PRODUCTS

Inasmuch as the Rubber Manufacturing Industry consists of the manufacture of some 30,000 items, the total unit volume of production is difficult to ascertain. However, table 9 presents an index of the volume of production obtained by applying weights to the leading products and expressing the weighted composite in terms of 1929 production.

The index of production, during the period 1926 through 1934, as shown in table 9, increased yearly from 75.5 in 1926 to 100.0 in 1929, and thereafter, decreased yearly to 56.7 in 1932. The downward trend was stopped, and, in 1933, the index, for the first time in four years, was greater than that of the preceding year.

Table 8 - Volume of Production of Pneumatic Casings

1926-1934

(Millions of Casings)

Year	Pneumatic Casings	
	Number	Index
1926	60,900	88.1
1927	63,864	92.4
1928	77,016	111.4
1929	69,144	100.0
1930	51,288	74.2
1931	49,044	70.9
1932	40,332	58.3
1933	45,588	65.9
1934	47,172	68.2

Source: Survey of Current Business with adjustments by N.R.A.

Table 9 - Index of Production of Rubber Manufacturing Industry.

1929 - 100 1926 - 1933

Year	Index
1926	75.5
1927	85.6
1928	92.6
1929	100.0
1930	78.0
1931	60.2
1932	56.7
1933	67.6
1934	71.2

Source: N.R.A. Research and Planning Division, constructed from production and/or shipments

data for selected items as reported in Bureau of Foreign and Domestic Commerce Survey of Current Business, weighted according to price.

11.A. PRODUCTION AND CONSUMPTION OF TIRES BY STATES, INDICATING INTERSTATE CHARACTER OF COMMERCE IN TIRES.

Although the products of the Rubber Industry are sold in every state, complete statistics as to the volume and value of sales of all rubber products are not available by states. However, the Rubber Manufacturers' Association submitted to the N.R.A. in April, 1935, statistics showing by states the sales for 1929 and 1933 of the principal members of the Industry. These statistics, shown in Table 10 represent for 1929, 57.7 per cent of the total domestic sales of the entire Industry, and for 1933, 65.9 per cent, and may therefore be regarded as a representative sample of the Industry. They show that tires and rubber accessories are sold in every state of the Union, and that the value of sales per state, in 1929, varied from $566,000, or 0.16 per cent of the total, for Nevada, to $32,530,000, or 9.33 per cent of total, for New York. In 1933, sales per state varied from $247,000, or 0.16 per cent of total, for Nevada, to $14,430,000, or 9.22 per cent of total for New York.

It is interesting to note that in 1929, 17 states each consumed less than 1 per cent of the total production; only 6 states consumed more than 5 per cent; and only one state consumed as much as 9.33 per cent. The 1933 figures are, for the most part, similar to those of 1929.

Table 10 - Net Sales of Tires, Tubes, Solids and Accessories By States - 1929 - 1933.a/

(Thousands of Dollars)

States	1929		1933	
	Amount	Per cent of Total	Amount	Per cent of Total
Alabama	$ 4,730	1.35	$1,908	1.22
Arizona	2,060	.59	710	.45
Arkansas	3,825	1.10	1,388	.89
California	26,686	7.65	13,244	8.46
Colorado	3,215	.92	1,418	.91
Connecticut	5,423	1.56	2,486	1.59
Delaware	784	.22	482	.31
D.C.	1,925	.55	1,084	.69
Florida	6,099	1.75	3,031	1.94
Georgia	5,430	1.56	3,080	1.97
Idaho	1,278	.37	591	.38
Illinois	19,728	5.66	8,635	5.52
Indiana	10,362	2.97	4,491	2.87
Iowa	7,400	2.12	2,832	1.81
Kansas	6,754	1.94	2,419	1.55
Kentucky	4,268	1.22	2,217	1.42
Louisiana	5,719	1.64	1,985	1.27
Maine	2,114	.61	1,172	.75
Maryland	3,835	1.10	1,904	1.22
Massachusetts	12,303	3.53	5,861	3.74
Michigan	14,139	4,06	5,793	3.70
Minnesota	7,341	2.11	2,912	1.86
Mississippi	3,909	1.12	1,305	.83
Missouri	10,731	3.08	5,057	3.23
Montana	1,783	.51	803	.51
Nebraska	4,559	1.31	1,900	1.21
Nevada	556	.16	247	.16
New Hampshire	1,329	.38	717	.46
New Jersey	10,237	2.94	4,897	3.13
New Mexico	1,038	.30	519	.33
New York	32,530	9.33	14,430	9.22
North Carolina	7,080	2,03	3,411	2,18
North Dakota	1,631	47	585	.37
Ohio	21,616	6.20	9,280	5.93
Oklahoma	7,986	2.29	3,544	2.26
Oregon	3,639	1.04	1,826	1.17
Pennsylvania	24,264	6.96	12,298	7.86
Rhode Island	2,177	.62	1,096	.70
South Carolina	2,174	.80	1,446	.92
South Dakota	2,285	.66	728	.46

Table 10 (continued)

States	1929 Amount	1929 Per cent of Total	1933 Amount	1933 Per cent of Total
Tennessee	$5,925	1.70	$2,828	1.81
Texas	20,669	5.93	9,276	5.93
Utah	1,996	.57	799	.51
Vermont	1,140	.33	3,470	.30
Virginia	4,795	1.38	2,462	1.57
Washington	5,287	1.52	2,440	1.56
West Virginia	3,598	1.03	1,415	.90
Wisconsin	8,729	2.50	2,789	1.78
Wyoming	924	.27	339	.22
Total	$348,615	100.00	$156,542	100.00
Total Sales of Industry	604,352 (b)		237,432 (b)	
Less Exports				
Per cent Sample is of Total	57.7		65.9	

Sources: A/ Rubber Manufacturers' Association Report to N.R.A. April 1935.
B/ Summary of Commer.

With some slight qualifications, Table 11 demonstrates the interstate character of the Tire Industry. The data show that in 1929 the six states which produced 81 per cent of all tires and tubes consumed only 28 per cent, while the remaining states, which produced only 19 per cent, consumed 72 per cent. It must be noted that the sales data pertain only to sales of leading manufacturers; but these may be assumed to be fairly representative of sales of all manufacturers. In addition, no allowance has been made for exports, but they constituted less than 6 per cent of the total production in 1929, and furthermore, most of the exports - if not all - must also enter into interstate commerce.

The inter-state character of the Rubber Industry is also indicated by the corporate structures of the larger companies. As discussed later in this report in the paragraph entitled, "Corporate and Subsidiary Structure for Specialized Functions," some of the larger rubber companies have as many as two hundred subsidiary corporations organized under the laws of the various states and foreign countries.

Every manufacturer knows that the costs and conditions of manufacture in one state or country directly affect those of another state. Examples of this are found in the imposition of protective tarrifs to protect American Industry from the competition of foreign-made goods, and the migration of the textile industry from New England to the South, and the migration of the American Rubber Industry to the British Empire.

Table 11 - Production and Sales of Tires and Tubes by Selected States, as Per cent of Total Value, 1929.

State	Production *	Sales **
Total	100.0	100.0
California	7.3	7.6
Iowa	0.2	2.1
New Jersey	1.5	2.9
Ohio	65.3	6.2
Pennsylvania	1.7	7.0
Wisconsin	5.3	2.5
Total, 6 States	81.3	28.3
Total, All others	18.7	71.7

Source:
*Census of Manufactures
**Rubber Manufacturers' Association, Inc., confidential bulletins issued April 12, 1930, and April 5, 1935. Sales are as reported by leading tire manufacturers.

12. EXCESSIVE PRODUCTIVE CAPACITY OF THE INDUSTRY

The determination of the productive capacity of an industry is difficult. Even when the exact figures are available, like a balance sheet, they portray the picture only at a stated time. Plant capacity is seldom static, since improvements in processes and methods tend steadily to increase it. Conversely, an increasing variety of products may restrict capacity.

No estimate has been made as to the productive capacity of the Rubber Industry, but, within recent years, at least three estimates have been made as to the capacity of the Rubber Tire Industry, namely, by the Rubber Manufacturers' Association in 1934, by Mr. Edwin G. Nourse of the Brookings Institution, in his study, "America's Capacity to Produce," 1934; and by Mr. A. L. Kress of the Research and Planning Division of N.R.A., November 1933. The three estimates differ considerably, and it is difficult to reconcile them.

The Rubber Manufacturers' Association, in its letter of August 1, 1934, to Deputy Administrator, E. D. Bransome, stated that its "survey of the capacity of the tire plants indicated that the Industry, as a whole had a capacity of 13,671 tires per hour, assuming the size and type assortment experienced over the twelve-month period ended December 31, 1933. Converted to an annual basis, this capacity would amount to 82,026,000 tires per year, assuming a maximum of 6,000 hours of plant operation at the capacity per hour given."

The Association submitted the tabulation in Table 12, showing the domestically produced sales of pneumatic casings and the number of hours that it would have been necessary for the Industry to have operated to produce the sales given at the existing capacity per hour. It will be observed that the percentage of the 6,000 hours capacity used varied from 49 per cent in 1932 to 79 per cent in 1929. In the seven-year period from 1927 through 1933, the capacity utilized averaged 63 per cent.

The Association felt "quite confident that this information conclusively demonstrated the desirability of limiting the creation of additional production capacity."

Mr. Edwin G. Nourse estimates that the percentage of capacity utilized during the period 1921-1930 varied from 56.3 per cent in 1930 to 90.9 per cent in 1925. In making this estimate, Mr. Nourse relied upon the U. S. Rubber Company for data as to capacity and upon the Bureau of Foreign and Domestic Commerce for data as to production. The estimate of Mr. Nourse is shown in Table 13 and Chart 2.

Mr. A. L. Kress of the Research and Planning Division of N. R. A., in his report of November 9, 1933, estimated the productive capacity of the Tire Manufacturing Industry at 98,500,000 per year as of January 1, 1933. This estimate was based on 281 days operation per year, or a capacity of 350,000 tires per day. In determining the extent of the over-capacity, Mr. Kress considered the seasonal variations in production. "Assuming a maximum demand of 69,000,000 tires a year (1929 production was 69,050,000) the average monthly production would be 5,750,000. Table 12 shows an index of seasonal variations, together with the maximum demand in plant capacity to provide for seasonal peaks.

"As pointed out in Table 14 the demand on productive capacity would vary from 4,870,000 tires per month in November to 6,613,000 in April or 36.0 per cent variation. The high figure is at the rate of approximately 80,000,000 tires per year. Assuming that the index is typical for all producers, and that the variations cannot be smoothed out by building up inventories for the spring demand, the Industry must have a "stand-by" capacity of 80,000,000 tires to meet an average demand of 69,000,000 tires. This means that, on the basis of 1929 production, the Industry has an excess capacity of 18,500,000 tires or 23 per cent over and above the capacity requirements of 80,000,000 tires for the seasonal peak. It is not believed that demand will exceed 70,000,000 tires over the next

five years.

"If these estimates are reasonably adequate, the Industry must look forward to carrying, as an industry, between $35,000,000 and $40,000,000 of fixed assets which cannot be utilized. This situation is the direct result of expansion programs of the Industry in 1928 and 1929. The productive capacity of the Industry was increased 50,000 to 60,000 tires daily by these programs."

An interesting comment on the capacity of the Tire Industry is found in the issue of "Standard Trade and Securities" published by Standard Statistics, April 17, 1935, page AT-97, which reads as follows:

> "Excessive productive capacity in the Tire Industry is a further factor that has tended to prevent harmonious trade relations and economic selling prices. The Industry is much better off in this respect than many other trades, however, total tire capacity in the United States, based on 252 days' operations per year, dropped from 106,000,000 in 1929 to 85,300,000 in 1931, and 69,200,000 at the beginning of 1935. Present production capacity should average 70 per cent active in 1935, a much higher ratio than is indicated for general industry."

Under such circumstances the flow of investment capital into the Tire Industry for plant expansion is obviously not justified, so long as excess capacity exists.

Between 1924 and 1929, about $273,000,000 of new capital flowed into the Rubber Industry for expansion and recouping of losses, as shown in Table 15. This new investment occurred despite the fact that even at that time the Rubber Industry was probably one of the most unsuccessful in the annals of American business. The Bureau of Internal Revenue, in 1929, ranked the Rubber Industry first in unprofitability in that 47.5 per cent of all corporations reported on net income. Furthermore during the seven years 1924 through 1930, when all manufacturing industry averaged 9.2 per cent on capitalization, the Rubber Industry averaged only 2.3 per cent. On this basis, the Rubber Industry was only 40 per cent as profitable as the Textile Industry which averaged 5.9 per cent during this period.

The record made by the Tire Division of the Rubber Industry since 1929 is even more depressing than that of the Industry as a whole prior to 1929. As discussed later in this report in the chapter on the "Profitability of the Rubber Tire Industry," the four years, 1930 through 1933, the Tire Division suffered losses of $77,027,000 or 2.97 per cent of sales of $2,598,752,000.

Table 12 - Utilization of Productive Capacity of Tire Industry as Estimated by Rubber Manufacturers' Association.

Year	Unit Sales Pneumatic Casings (000)	Industry Hours	Percentage of 6,000 Hours Capacity
1927	50,703	3,709	62
1928	60,889	4,454	74
1929	64,868	4,745	79
1930	52,573	3,831	64
1931	48,531	3,550	59
1932	39,917	2,920	49
1933	44,333	3,243	54
Average	51,659	3,779	63

Source: Rubber Manufacturers' Association
Letter to Deputy E. D. Bransome
August 1, 1934

Table 13 - Practical Capacity and Percentage of Practical Capacity Utilized in Tire Industry.

Year	Practical Capacity (000)	Estimated Production (000)	Percentage of Practical Capacity Utilized
1921	45,645	27,298	59.8
1922	46,480	40,927	88.1
1923	61,840	45,426	73.5
1924	62,000	50,817	82.0
1925	64,692	58,783	90.9
1926	68,634	60,120	87.6
1927	74,501	63,553	85.3
1928	86,691	75,524	87.1
1929	91,600	69,766	76.2
1930	91,600	51,610	56.3

Source: "America's Capacity to Produce" Page 583, Edwing G. Nourse, The Brookings Institution 1934.

Table 14 - Monthly Outputs Required for Annual Production of 69,000,000 Tires.

Month	Seasonal Index	Monthly Output
January	95.3	5,479
February	99.2	5,704
March	110.8	6,371
April	115.0	6,613
May	111.8	6,428
June	113.0	6,498
July	96.0	5,520
August	103.0	5,922
September	94.0	5,405
October	89.3	5,135
November	84.7	4,870
December	87.9	5,054

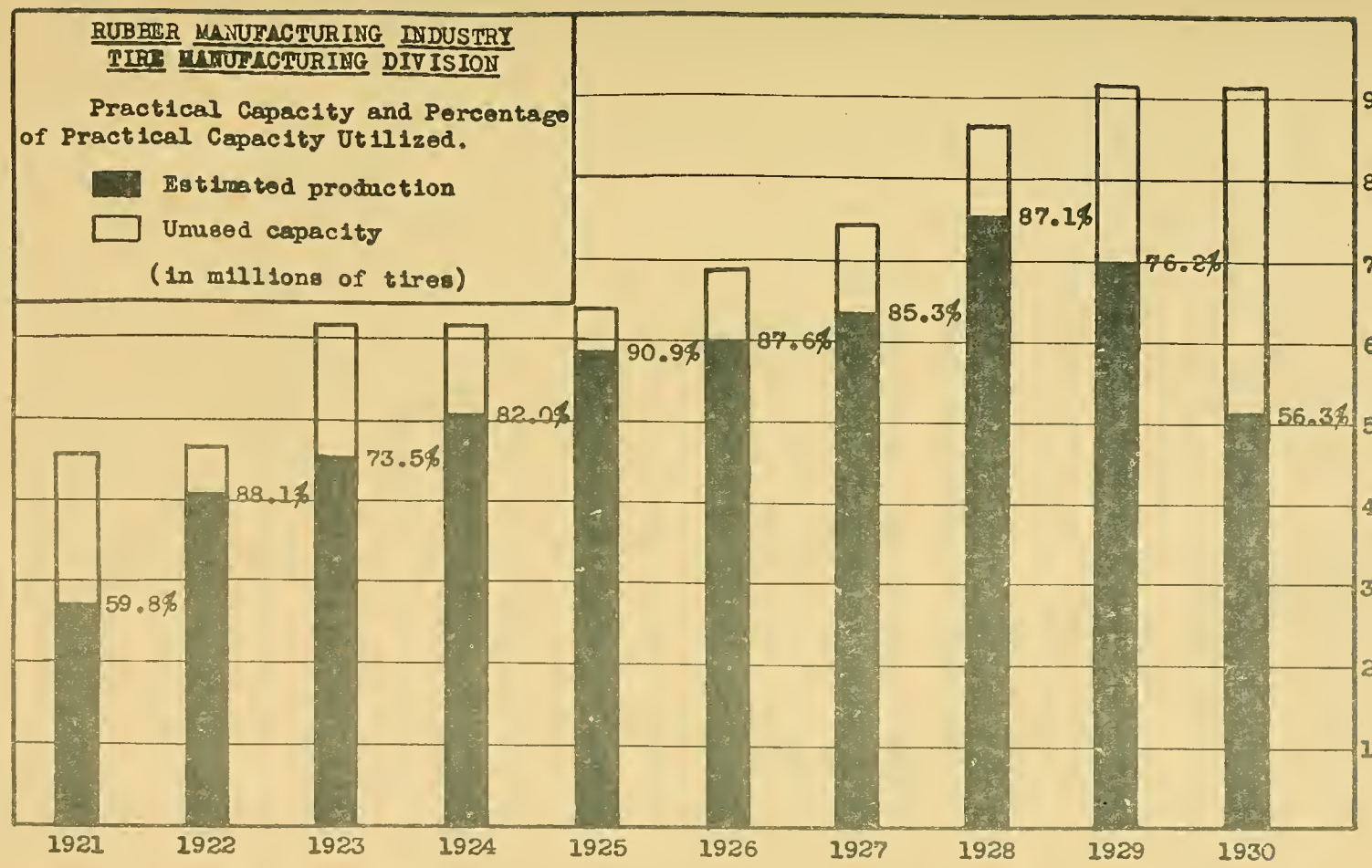
Source: Kress Report - Page 9 "Rubber Tire Industry" Research and Planning - N.R.A. November 9, 1933.

13. SEASONAL FLUCTUATION AND DECLINING TREND OF PRODUCTION

The peak year of production in the tire manufacturing division during the past decade, 1926-1935, occurred in 1928, when the index of production, measured on the 1929 level, and as shown in Table 16 and Chart 3, was 112.2. During 1928, production every month exceeded the 1929 average with the exception of January and December, which were 92.6 and 95.1 respectively.

In 1929, the peak of production was in May, with an index of 131.9, the highest point ever reached in the history of the Industry. In the remaining months of the year, production rapidly declined, reaching a low point of 55.0 in December, compared with 95.1 for the preceding December.

In 1930, during the first half year, production recovered somewhat, reaching an index of 98.1 in May. As shown in Chart 3, after



Source: Edwin G. Nourse, "America's Capacity to Produce", p. 583, Table 23, - The Brookings Institute, 1934.

Table 15 - Capitalization and Bonded Debt of Rubber Industry 1924 - 1932 (a)

(Millions of Dollars)

Year	Capitalization			Bonds and Mortgages	Total	
	Preferred Stock	Common Stock	Total Stock		Amount	Per cent Increases over 1924
1924	$ 348	$ 266	$ 634	$ 108	$ 742	--
1925	334	251	585	204	789	6.33
1926	279	386	665	192	857	15.50
1927	258	457	715	240	955	28.71
1928	268	442	710	247	957	28.98
1929	291	484	775	240	1,015	36.79
1930	276	515	791	151	942	26.95
1931	252	486	738	268	1,006	35.58
1932	238	449	687	251	938	26.42

(a) Included are a negligible number of companies engaged in the manufacture of bone and buttons.

Source: Statistics of Income,
Bureau of Internal Revenue

May, production fell off, and in November the index was 46.2, with an average for the year of 73.8.

In 1931, during the first half year, production increased and, in May, production index stood at 96.7. Compared with the preceding year, the May index was 1.4 points under, and compared with May 1929, it was 35.2 points under. The second half of 1931 witnessed the usual decrease in business, but it is important to note that each succeeding year established a new low in production. In 1931, the low point occurred in December, with an index of 45.6.

In 1932, production in the first quarter year did not show the usual seasonal increase. However, with the imposition by the Congress, of the excise tax to become effective July 1, 1932, production rapidly increased, and in June 1932, the index was 96.1. The second half year tells a dismal story, and production declined to 33.8 in December, the lowest point reached in the decade, with a yearly average of 56.9.

The year 1933, and opened with little hope for the Tire Industry. Business lagged, and during the banking holiday in March, the index of production was 34.8, compared with 122.5 for March 1929. With the reopening of the banks, production was speeded up, and in June, for the first time since July 1929, the monthly index exceeded 100 when production was 103.5. The high production in June was the result of the effort of the Industry to accumulate inventories before rise in costs, due to enactment of the National Industrial Recovery Act. After June, production declined to 52.3 in December, with an average for the year of 64.5.

In 1934, the year of Code operation, production was more nearly uniform, varying from 88.5 in March to 50.9 in September, with a yearly average of 67.3. This uniformity of production was the result of the "loading" program of the Industry in the previous year and early in 1934. As will be seen from the chart, there was a tremendous increase in production in 1933. This increased production was in anticipation of 1934 sales and placed tremendous inventories in the hands of retail dealers and consumers. The truce and the establishment of minimum prices by the N.R.A. curbed price wars. Inventories were liquidated more gradually and production was, therefore, more uniform.

For 1935, production figures are available for only the first six months. There was a slight decrease compared with 1934, and in May 1935, the Tire Industry ended code administration with production indexed at 71.4 of the 1929 average.

Table 16 - Rubber Tire Manufacturing Industry

Index of Production 1926-1935

1929 = 100

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
JAN.	89.9	87.2	92.6	109.2	78.4	63.4	59.4	38.5	66.4	78.8
FEB.	90.2	88.6	110.4	112.2	79.3	68.5	66.5	40.1	73.5	74.7
MAR.	99.0	111.4	118.3	122.5	84.3	79.7	62.8	34.8	88.5	74.1
APR.	95.8	112.7	107.7	128.1	97.0	84.3	59.8	53.1	81.5	76.9
MAY	89.7	109.2	117.5	131.9	98.1	96.9	64.7	87.9	76.3	71.4
JUNE	95.5	109.1	116.2	118.8	88.0	96.7	96.1	103.5	74.2	66.2
JULY	87.1	89.4	112.5	105.6	68.8	85.0	60.8	98.1	58.1	
AUG.	104.8	101.7	130.6	95.2	73.4	68.5	52.4	86.0	61.1	
SEPT.	102.7	85.4	117.5	79.5	59.3	55.3	43.9	68.8	50.9	
OCT.	91.1	83.4	125.1	81.9	63.1	51.6	43.3	59.4	56.4	
NOV.	76.9	78.6	103.2	60.1	46.2	43.1	39.0	52.2	57.1	
DEC.	83.1	79.0	95.1	55.0	49.4	45.6	33.8	52.3	63.3	
Average	92.1	94.6	112.2	100.0	73.8	69.9	56.9	64.5	67.3	

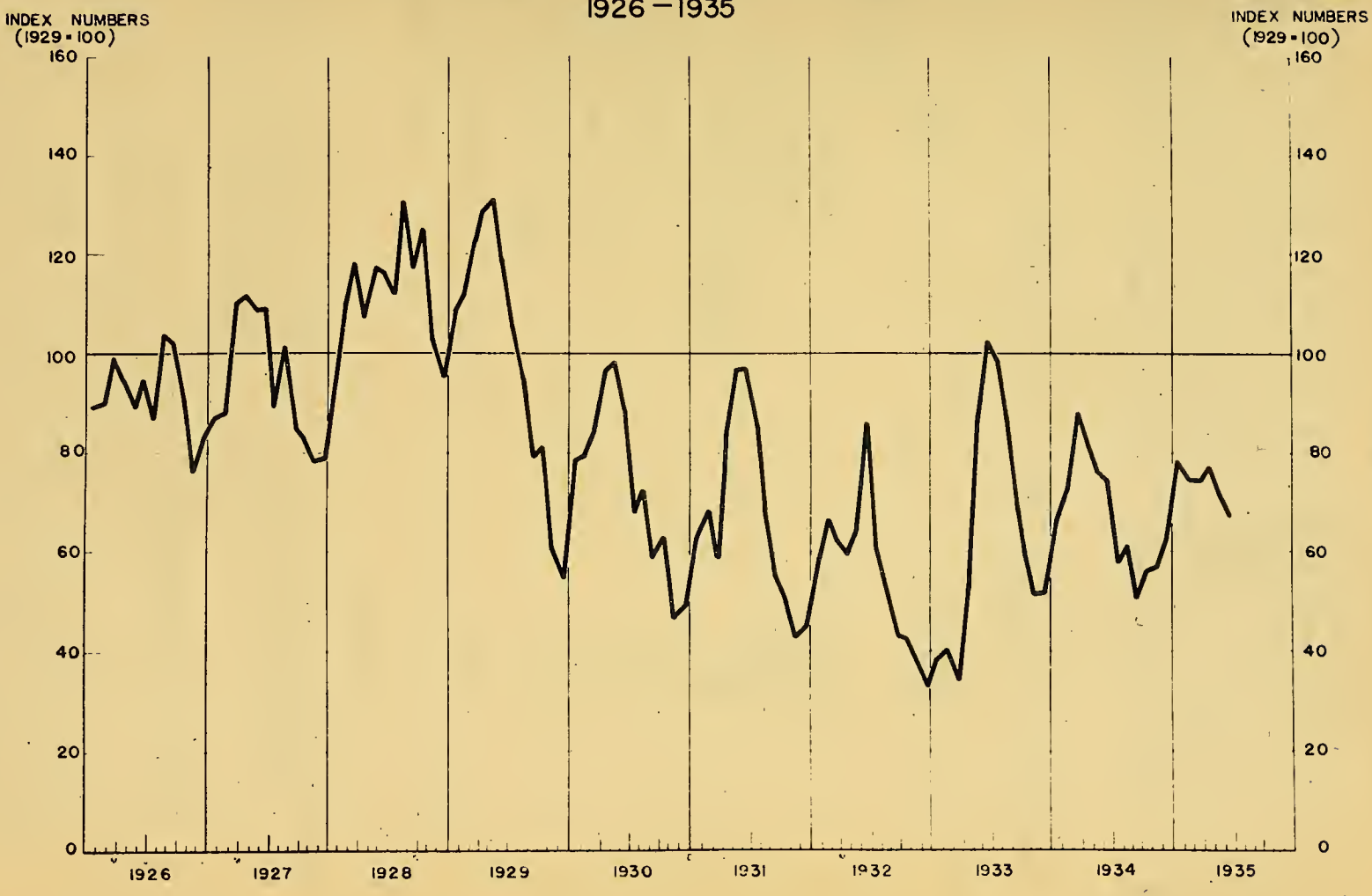
Source: Aggregate production divided by 1929 average compiled by Statistics Section N.R.A. November 1935.

RUBBER MANUFACTURING INDUSTRY

PRODUCTION IN TIRE MANUFACTURING DIVISION

1926 – 1935

9886



SOURCE INDEX COMPUTED BY N R A FROM DATA TAKEN FROM SURVEY OF CURRENT BUSINESS

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B. DISTRIBUTION, COMPETITION, AND PRICES

1. VARIETY IN TYPE AND NUMBER OF DISTRIBUTION OUTLETS.

Tires are distributed through many channels, but the more important, as classified by Prof. W. W. Leigh of Akron University, are as follows: Independent Dealers, Mail-Order Houses, Chain Stores, Department Stores, Oil Company Stations, Factory-owned Stores, Direct Factory Shipments, and Spares through Car Manufacturers. The total number of outlets engaged in the retail distribution of tires in 1934, was estimated by the Rubber Division of the Bureau of Foreign and Domestic Commerce at 183,777. The number of outlets in each classification is shown in Table 17.

Table 17 - Number of Outlets Engaged in Retail Distribution of Tires - 1934 -

TYPE	NUMBER
Independents	
(a) Dealers	84,000
(b) Sub-Dealers	35,000
(c) Jobbers	1,200
(d) Jobber Sub-Dealers	20,000
(e) Warehouse Dealers	950
Factory -owned Stores	1,350
Auto Supply Chain Stores	375
Mail Order Retail Stores	900
Oil Company Stations	40,000
Mail Order Houses	2
Total	183,777

(a) Included in this classification are many merchants whose sale of tires is negligible and may not exceed one sale per year.
Source: Special Circular #3533, Rubber Section, Bureau of Foreign and Domestic Commerce, December 15, 1934.

In reference to the above estimated number of outlets, Mr. Albert Abrahamson, in his Study, the "Price of Automobile Tires" a/, had the following comments to make:

> "The number and importance of these types of outlet have been estimated by various persons. The figure of 180,000 has become the accepted estimate of the number of places in the country where tires may be bought. Careful examination of the bases for such an estimate

a/ The price of Automobile Tires, by Albert Abrahamson, Report No. 2 The price Study, November 1, 1934, N.R.A.

leads to the belief 250,000 would be just as accurate. The truth no one really knows. It is further estimated that 85 per cent of the outlets do less than $2000 in business each year, so far as tires are concerned. At a public hearing, the statement was made that 160,000 dealers have total annual tire sales of less than $1000, and that fewer than 1000 dealers have annual sales of $25,000 or over. Only 10,000 units in the country are really tire dealers in the sense that more than half their annual volume is in tires. The bulk of the dealers are tire merchants on such a small scale that the tire business must be an incidental part of some other business or businesses, a conclusion which is substantiated by various tests. On the other hand, the bulk of the tires sold reach the consumer through a relatively small number of dealers. In the case of renewal sales, 43 per cent of dollar volume is in commercial accounts, always handled by large dealers or by the factory itself"

2. CONFUSING AND ILLOGICAL PRICE STRUCTURE IN THE INDUSTRY

The price structure existing in the Tire Division of the Rubber Industry is not the result of an orderly plan of merchandising, but, in effect, is the result of the confusing and contradictory methods of merchandising pursued by the various manufacturers and mass distributors. The lack of a uniform sales policy, together with the excess productive capacity of the Industry, have produced a price structure which changes from day to day.

The pricing system and policies pursued by tire manufacturers in soliciting dealer business has been called a race of discounts. Most manufacturers have a "net billing" price to dealers of a certain discount (usually 25%), from their published consumer list price. This is the price extended any dealer buying for re-sale regardless of quantity of purchases. Beyond this price, the methods followed to reduce prices and provide preferential buying positions for larger accounts are bewildering in number and variety.

Any attempt to analyze further the price quotations available yields discouraging results. For there is no one price at any time even for the identical tire. One would expect differences in prices to different types of dealers and consumers. But there are further differences. One can begin with the various prices published by the manufacturers as "list prices." As far as "list prices" are concerned, there has been a tendency since 1929 for most of them to be identical. But, apparently, list prices mean very little. At most, a list price is the maximum a dealer will charge a consumer. Actually, it is more properly described as a base from which to make countless discounts to meet what are called "competitive conditions."

The dealer, in addition to his regular discount, gets discounts depending on the volume of business, discounts for cash, discounts for special price sales, discounts if he acts as wholesaler as well as retailer, discounts if he handles "commercial accounts," discounts if he handles only one brand of tire, and finally and, in many respects, most important, there are special discounts and "cut-backs" to "meet competition." At one time, fourteen ten per cent discounts were applied to the list price. It is safe to say that usually the dealer pays list minus the regular discounts down to forty per cent of list price. When price wars become particularly bitter, the price to the dealer may go as low as twenty per cent of list.

The contemporary price structure of the Tire Industry reveals a multiplicity of prices, and, instead of considering the price of a tire or the price of tires, one should speak of an array of prices of many tires. A further discussion of prices and competition is found later in this report under Section III, "Special Problems in the Industry."

3. PRICE STRUCTURE IN OTHER RUBBER GOODS INDUSTRY

The price structures, prevalent in the other divisions of the Rubber Industry, are usually based on a manufacturer's list price, from which are deduced discounts applicable to the various classifications of customers. As in the case of tires, the list price in the other rubber goods division represents usually only an ideal of what the manufacturer would like his dealer to get for his products. As a matter of fact, trade conditions in the other rubber goods division are very similar to those in tires, and price wars are prevalent.

The Industry is composed of a few large and many small manufacturers. The ability of the latter to secure business is dependent upon their quoting prices under those of the larger manufacturers. As long as such lower prices are kept secret or are limited to a small market, there is little danger of a price war. But should such knowledge be broadcast to the trade generally, a price war is certain to ensue. During the period of Code administration, the Heel and Sole Division had to suspend the open price filing provisions of its Code, because the lower prices of small manufacturers became common knowledge, precipitating a general price war and forcing reduction in prices to a point below cost.

4. CHARACTER AND INTENSITY OF INTRA-INDUSTRY COMPETITION

The character of the competition existing in the distribution of rubber products has been largely determined by the fact that rubber products are, for the most part, small in size, low in unit cost, and are adapted to innumerable uses. The result is that rubber products are offered for sale in stores of every description. Moreover, the sales of rubber products are usually only a small percentage of the total sales of the retail merchant who, therefore, can afford to feature the sale of rubber products as "loss leaders." This demoralizes the price structure of the entire Industry, and is, no doubt, one of the principal factors contributing to the present plight of the Industry. This is especially true of the tire division and boot and

shoe divisions.

In the tire division, there are three principal classes of outlets, namely, independent dealers, mass distributors, and company-owned stores. The character of the competition in this division has been determined by the fact that the mass distributors include such organizations as Sears Roebuck and Company, Montgomery Ward & Company, Western Auto Supply, Standard Oil Company, and others. These organizations by virtue of their large volume of sales, purchase their tires at exceptionally low prices, or, in the words of the Federal Trade Commission, at discriminatory prices. Their price advantage is further enhanced by the fact that their tire sales are only a negligible factor in their total sales volume. Tires are accordingly used as "bargain specials" to attract trade. Tires are sold through such channels at a price lower than the cost-price of the independent tire dealers, who, finding it impossible to compete, are being forced out of business. This, in turn, is having repercussions within the Industry, and the tire manufacturers, confronted with a decreasing number of outlets, have been compelled to establish their own retail outlets, commonly known as "company-owned stores." At present, there is said to be more than eleven hundred such stores and their number is constantly increasing. Of course only the larger and financially able manufacturer can afford to establish their own retail stores, and the plight of the smaller and weaker manufacturer becomes more critical.

There is raging today the fiercest competition the Industry has ever known. It is not likely that the small independent dealer or manufacturer can survive, and the Industry may be faced with a monopoly in the not distant future.

It is worth while to bear in mind the character of the competition as described by Mr. Edward B. Levy, President of the Fisk Rubber Corporation, at a public hearing on the proposed Retail Tire Code, December 14, 1933. Mr. Levy spoke as follows:

> "The Trade may be roughly divided into two groups:
> 1. The company owned stores, the controlled dealers, the mail-order houses, the oil company outlets, and chain stores.
>
> 2. The independent dealers.
>
> "The first group includes the retail stores and retail subsidiaries of the big tire manufacturers and stores controlled by them. There are at the present time more than eleven hundred such 'company-owned stores,' and in recent years their number has constantly and rapidly increased."
>
> "In this group also belong the thousands of filling stations and service depots, through which certain large oil companies retail special brand tires.
>
> "Also in this group are the mail-order houses, the two largest of which are said to be operating over nine hundred retail stores.

"The common characteristic of these 'Group I' retail outlets is their dependence upon the resources of the corporations which back and own them.

"The second group includes thousands upon thousands of concerns, individuals, firms, corporations - of varying size but mostly small, scattered throughout the country, and each existing independently of each other, and of any other resources except the capital invested in them.

"The common characteristic of these 'Group II' retail outlets is their individual independence.

"Now these two groups are in constant, fierce competition with each other. It is worth a moments consideration to understand the circumstances under which this competition is carried on.

"The company-owned and controlled stores, the mail-order stores and oil company outlets, select the best location available, regardless of expense involved, are backed by unlimited finances, extensive national and local advertising programs, and complete, even extravagant service equipment and facilities.

"If a price list is established and no sales are made, this type of store can live; the personnel may be changed, expenses will go on.

"Payment of bills is not forced by the parent company, losses are absorbed at the home office, more money is supplied and continuous operation goes on.

"Opposed to this, the independent dealer must finance himself; he cannot afford the most desirable location in town; cannot carry on extensive advertising programs; must economize on equipment and service facilities; is billed for his purchases at a definite price and must pay for them when due, and finally has no home office which will absorb his losses or supply additional capital.

"The smaller retailer, located on an obscure side street with no electric signs, no local or other advertising, and selling a tire not nationally advertised, cannot sell many tires, tubes, and/or batteries at the Consumers List Prices, and, if he is compelled by law to do so, the business will naturally gravitate to the large, well located, extensively advertised and often extravagantly operated company stores, to mail order houses, retail stores, to the better located oil stations of the large oil companies, and to the hundreds of other large chain stores, department stores and others handling tires, tubes, and/or batteries; leaving the independent dealer of modest means at a great disadvantage and eventually forcing him out of business."

C. FINANCIAL ASPECTS OF THE INDUSTRY

1. CORPORATE AND SUBSIDIARY STRUCTURE FOR SPECIALIZED FUNCTIONS.

The Big Four Companies, namely, Firestone, Goodrich, Goodyear, and United States, and it is believed, many of the smaller companies have found it practical to organize separate corporations to handle specialized functions in the manufacture and distribution of rubber products.

For example, the Goodyear Tire and Rubber Company, on the basis of data submitted to the Securities and Exchange Commission, as shown in Table 18, consists of 53 corporations of which 27 are organized under the laws of foreign countries. The data indicate that corporations were set up for the following activities: Commercial Banking, Coal Mining, Cotton Plantations, Cotton Mills, Investment Banking, Housing Construction, Real Estate, Retail Stores, Rubber Manufacturing, Rubber Plantations, and Zeppelin Construction.

The Firestone and Goodrich Companies have set up corporate structures similar to that of Goodyear. In the proceedings before the Federal Courts, these companies sought to deny the authority of the Labor Relations Board to order labor elections within their factories, because their factories were engaged solely in intrastate commerce, having been organized under the laws of Ohio, operating only in Ohio, and selling their entire output to their sales company, also an Ohio corporation.

The statement filed by the Goodyear Company with the Securities and Exchange Commission, describing briefly the general character of the business done, gives some indication of its corporate structure. The statement reads as follows:

> "The registrant is engaged in the manufacture and sale of rubber tires, mechanical goods, rubber heels and soling for shoes, a complete line of hose, belting and packing, and incidental to carrying on the foregoing business, it owns stock of sales companies and companies engaged in related business (the holding of such stock, however, being merely incidental to the business of the registrant, which is not a 'Holding Company' in the same sense that such term is ordinarily employed).
>
> "The registrant's subsidiary, Goodyear-Zeppelin Corporation, is incorporated to manufacture lighter-than-air-craft, and is in the business of manufacturing and selling light weight articulated streamlined trains.
>
> "The registrant obtains a part of its coal supply from its subsidiary, the Wheeling Township Coal Mining Company at Adena, Ohio, and obtains a part of its supply of the principal raw materials used in the manufacture of rubber goods through stock control of the Goodyear Rubber Plantations Company, which controls 94,000 acres of rubber plantation lands in Sumatra and the

Phillippine Islands, and through a controlling ownership of the Southwest Cotton Company, located at Phoenix, Arizona, which owns 34,000 acres of land and is engaged in the growing of cotton, and of Goodyear Clearwater Mills at Cedartown, Rockmart and Cartersville, Georgia; Goodyear Decatur Mills at Decatur, Alabama; Goodyear Fabric Corporation, New Bedford, Mass; and Goodyear Cotton Company of Canada, Limited, at St. Hyancinthe, Quebec, all of which companies are engaged in the manufacturing of tire fabric."

The development of such corporations as Goodyear, Firestone, Goodrich and others have wrought such changes in American life that it is questionable whether the older concepts of private enterprise are applicable. There are some economists who believe that modern corporations, such as Goodyear and the like, are not only methods of property tenure, but are means of organizing economic life and that there has developed a "corporate system"-as there was once a feudal system - which has attracted to itself a combination of attributes and powers, and has attained a degree of prominence entitling it to be dealt with as a major social institution. Moreover, those economists believe that the corporate system will move forward to proportions which would stagger imagination today; just as the corporate system of today was beyond the imagination of most statesmen and business men at the opening of the present century.

In discussing the present development of modern corporations, Messrs. Adolf A. Berle, Jr., and Gardiner C. Means, in their book, "The Modern Corporation and Private Property," page 357, offer the following comments:

"The rise of the modern corporation has brought a concentration of economic power which can compete on equal terms with the modern state-economic power versus political power, each strong in its own field. The state seeks in some aspects to regulate the corporation, while the corporation, steadily becoming more powerful, makes every effort to avoid such regulation. Where its own interests are concerned, it even attempts to dominate the state. The future may see the economic organism, now typified by the corporation, not only on an equal plane with the state, but possibly even superseding it as the dominant form of social organization. The law of corporations, accordingly, might well be considered as a potential constitutional law for the new economic state, while business practice is increasingly assuming the aspect of economic statesmanship."

Table 18 - Subsidiary Corporations of the Goodyear Tire and Rubber Company - 1935.

Subsidiary	Per cent of Voting power Held by Parent Company
The Goodyear Tire & Rubber Export Company	100
The Goodyear Tire & Rubber Export Company, Ltd.	"
The Goodyear Heights Realty Company	"
Marathon Rubber Company, Inc.	"
The Wheeling Township Coal Mining Company	"
The Goodyear Rubber Plantations Company	"
Southwest Cotton Company	"
Wingfoot Corporation	"
The Goodyear Tire & Rubber Company, Inc.	"
The Goodyear Tire & Rubber Company, Inc. - (Ala)	"
The Goodyear State Bank	94
Goodyear-Zeppelin Corporation	71.4
Zeppelin, Inc.	100
Goodyear Investment Corporation	"
Compania Espanola DeNeumaticos & Caucho Goodyear (S.A.)	"
Allyn Rubber Products Company	"
Goodyear Tire & Rubber Company of Alabama	"
The Goodyear Tire & Rubber Company A/S	"
The Goodyear Tire & Rubber Company A.G.*	"
Goodyear Clearwater Mills	"
The Goodyear Tire & Rubber Company of Cuba	"
Goodyear Fabric Corporation	"
Goodyear Gummiaktiebolag	"
The Goodyear Tire & Rubber Company, Ltd. (Java)	"
The Goodyear Tire & Rubber Company of Mexico, S.A.	"
The Goodyear Tyre & Rubber Company, of New Zealand, Ltd.	"
The Goodyear Tyre and Rubber Company (S.A.) Limited	"
Goodyear Portuguesa Limitada	"
Goodyear Service, Inc. (Inactive)	"
The Goodyear Tire & Rubber Company of South America	"
The Goodyear Orient Company, Limited	"
The Goodyear Orient Sales Company, Limited	"
Goodyear Rubber Prodejni AKC Spol (Czech) (in liquidation)	"
Naamlooze Vennootschap Landbouw Maatschappij Habara	"
Middlebury Land Company	"
Neumaticos Goodyear S. A.	"
Pneumatiques Societe Anonyme	"
Goodyear Decatur Mills	"
Goodyear Osakeyhtio	"
Overseas Tyre Rubber Co. Ltd.	"
The Goodyear Tyre & Rubber Co. (India) Limited	"
The Goodyear Tyre & Rubber Company (Great Britain) Limited	"
The Staffordshire Housing Company, Limited	"
Goodyear Tire & Rubber Company of California	91.6
Goodyear Tire & Rubber Company of California, Inc.	100

* The Common Stock elects a majority of the directors.

Table 10 (continued)

Subsidiary	Per cent of Voting Power Held by Parent Company
The Goodyear Tire & Rubber Company of Canada, Ltd.,	
Common Stock	78.3
Preferred Stock	7.6
*See Note	
Goodyear Cotton Co. of Canada, Limited	100.0
Goodyear Improvement Company, Limited	"
The Goodyear Tyre & Rubber Company (Australia) Limited (100% of vote unless Preferred Stock is in default, then Preferred Stock votes)	"
The Goodyear Tyre & Rubber Company of Autralasia Proprietary, Limited	100.0
The Kelly-Springfield Tire Company (Maryland)	"
The Kelly-Springfield Tire Company (New York)	"

*Note - The Common Stock elects a majority of the directors

2. COMPARISON OF PROFITABILITY OF TIRE AND OTHER RUBBER GOODS DIVISIONS

A comparison of the profitability of the Tire Industry with the other parts of the Rubber Industry was made by Mr. E. G. Holt of the Rubber Section of the Bureau of Foreign and Domestic Commerce, and was published in his Rubber Industry Letter No. 1, July 31, 1933. This comparison, as shown in Table 19, showed that the other rubber division was more profitable than the tire division, despite the fact that the tire division had a volume of business several times greater than that of the other rubber division. Mr. Holt's summary is as follows:

> "This analysis shows the tire corporations as a group began the year 1931 with a net deficit after taxes of $44,047,000 as a result of operations during the preceding four years, whereas the other rubber corporations accounting for only 13.76 per cent of the gross income of the rubber industries during the period, had a net income after taxes of $55,043,000, or a rate of 4.89 per cent on their total gross income, but in spite of this the Industry as a whole had a net deficit, after income tax, amounting to $9,005,000. The average number of rubber corporations reporting was 528, tire corporations 151, and other rubber corporations 377; the average number reporting a net income before taxes was; total rubber corporations 244, tire corporations 44; other rubber corporations 200. The average number reporting a deficit was: total rubber corporations 255; tires 94; other rubber goods 161. Thus, less than one-third of the tire corporations operated at a profit, while five-ninths of the other rubber corporations enjoyed a net income for the four year period."

Table 19 - Comparison of Profitability of Tire Division and Other Rubber Division, 1927-1930

(Thousands of Dollars)

Items	Tire Corporations	Other Rubber Corporations	Total
Total Gross Income	4,495,744	717,090	5,212,834
Corporations Reporting Net Income:			
Gross Income	3,752,995	584,252	3,337,247
Net Income	121,625	53,935	175,560
Income Tax	14,347	6,449	20,696
Net Income less Tax	107,378	47,486	154,864
Corporations Reporting No Net Income			
Gross Income	1,742,749	132,838	1,875,587
Deficit	151,425	12,444	163,869
Net Income After Tax and Deficit	44,047 (a)	35,042	9,005 (a)

(a) Net Deficit

Source: Rubber Industry Letter No. 1, Page 4 Bureau of Foreign and Domestic Commerce, July 21, 1933.

3. UNPROFITABILITY OF TIRE INDUSTRY

An analysis of the income tax reports filed by rubber tire manufacturing companies at the Bureau of Internal Revenue shows that the number of such companies varied from 66 in 1932 to 175 in 1926, as shown in Table 30. This number is considerably larger than the estimate of the Census of Manufactures, see Table 1, and it is probable that many other rubber manufacturers are included with tire manufacturers.

During the eight year period, 1926-1933, the Industry lost 4,791,000 or 0.66 per cent of its sales volume of $7,305,000,000. During the period, the Industry was profitable in 3 years and suffered losses in 5 years.

In 1928, when all other industry, generally speaking, was profitable, the Tire Industry lost $10,896,000 or 0.97 per cent of sales.

Mr. A. L. Kress, of the Research and Planning Division of N.R.A., in his report on the Tire Industry, November 9, 1933, made the following comments on the profitability of the tire industry:

> "Notwithstanding the great increase in demand between 1919 and 1929, and the complete absence of any inter-industry competition, the tire industry has probably been one of the most unsuccessful in the annals of American business. In the year 1929, the rubber industry ranked first in unprofitability in that 47.5 per cent of all companies reported no net income to the Bureau of Internal Revenue."

In connection with the above quotation, it should be noted that this report shows that in 1929, 69.8 per cent of all tire manufacturing companies reported losses.

Exhibit 8 shows a comparison of receipts and deductions of all companies for the period 1926 through 1933.

Table 20 - Profitability of Rubber Tire Industry, 1926-1933

(Thousands of Dollars)

Year	Number of Companies	Sales	Profits	Deficits	Percent Profits are of Sales	Percent Deficits are of Sales
1926	175	1,230,236	34,221	- -	2.78	- -
1927	160	1,173,580	38,130	- -	3.25	- -
1928	154	1,125,589	- -	10,996	- -	0.97
1929	139	1,176,843	10,731	- -	0.92	
1930	98	897,953	- -	40,803	- -	4.54
1931	68	644,884	- -	13,151	- -	2.04
1932	66	503,326	- -	22,727	- -	4.52
1933	78	552,589	- -	346	- -	0.06
Total		7,305,000	83,123	87,923	1.14	1.20
Net Deficit				4,791		0.66

Source: Compiled from data of Bureau of Internal Revenue H. L. Wells, W. H. Cross N.R.A. November, 1935.

4. NUMBER OF DECLINING PROFITABLE TIRE COMPANIES

The number of tire companies reporting profits to the Bureau of Internal Revenue during the period 1926-1933, as shown in Table 21, declined from 66 in 1926 to 12 in 1932. In 1933, the number increased to 26. It is significant that the profitable companies of the Industry were in the minority, constituting in 1932, only 18.2 per cent of the total number of companies. The best year was in 1927, when they constituted 40.0 per cent. In 1933, they were 33.3 per cent of the total number.

[illegible] OF TIRE INDUSTRY

COMPARISON OF RECEIPTS AND DEDUCTIONS OF ALL COMPANIES
1926 - 1933 INCLUSIVE

	1933	1932	1931	1930	1929	1928	1927	1926
NUMBER OF RETURNS:								
From which income data compiled	78	66	68	98	139	154	160	175
Inactive returns, no data available	5	7	5	8	11	18	15	Not shown
RECEIPTS, (taxable income)								
Gross sales, (less returns & allowances	549,740,418	501,426,863	639,142,610	894,538,890	1,170,081,363	1,122,438,573	1,171,949,599	1,229,043,409
Gross receipts from other operations	2,848,250	1,899,482	5,741,566	3,413,675	6,762,546	3,150,006	1,629,984	1,192,893
Interest	7,232,886	7,640,478	7,958,542	8,406,302	7,426,196	5,012,173	4,381,593	4,661,046
Rents	3,461,191	3,183,727	3,572,275	4,761,051	4,722,950	Not segregated	Not segregated	Not segregated
Profit from sale of capital assets	168,823	85,921	17,861	80,574	968,129	81,796	" "	" "
Miscellaneous Receipts	12,340,008	9,294,924	7,251,162	9,803,787	7,234,317	13,088,355	14,683,532	21,510,422
RECEIPTS, (tax-exempt income)								
Dividends from domestic corporations	114,077	5,021,253	4,679,140	11,935,865	11,721,245	8,910,025	8,361,143	35,942,814
Interest on tax-exempt obligations	840,026	604,166	62,650	121,677	88,944	41,024	76,946	5,098
TOTAL COMPILED RECEIPTS	576,745,679	529,156,814	668,425,806	933,061,821	1,209,005,690	1,152,721,952	1,201,082,797	1,292,355,682
STATUTORY DEDUCTIONS								
Cost of goods sold	391,018,489	350,684,687	472,253,153	711,048,811	918,004,392	902,316,638	890,985,028	1,021,757,933
Compensation of officers	2,137,807	2,024,834	3,155,815	3,174,792	4,514,840	3,721,243	Not segregated	Not segregated
Interest paid	16,900,904	18,299,037	19,462,088	23,393,629	22,778,349	23,951,804	26,309,098	26,196,573
Taxes paid, (other than income tax)	14,223,387	7,298,014	6,190,114	7,310,169	7,387,091	7,194,481	7,019,226	7,169,643
Bad debts	9,638,179	16,743,282	8,614,761	10,674,389	7,858,715	7,932,787	7,719,147	Not segregated
Depreciation	27,295,457	26,930,130	32,722,502	33,561,857	30,560,935	26,886,466	28,624,776	22,458,538
Depletion	10,953	60,000	56,250	12,812	-	-	-	-
Loss from sale of capital assets	990,893	215,292	1,563,519	1,621,487	Not segregated	Not segregated	Not segregated	Not segregated
Miscellaneous deductions	113,889,485	129,455,318	136,500,491	182,447,566	202,921,113	188,618,098	195,664,632	177,985,677
TOTAL STATUTORY DEDUCTIONS	576,105,554	551,710,594	680,518,693	973,245,512	1,194,025,435	1,160,621,517	1,156,521,907	1,255,568,364
Compiled net profit or deficit	640,125	- 22,553,780	- 12,092,887	- 40,183,691	14,980,255	- 7,899,565	44,560,890	36,787,318
Statutory net income of deficit	-313,978	- 28,179,199	- 16,834,677	- 52,241,233	3,170,066	- 16,850,614	36,122,801	839,406
Net loss for prior year	-	512,012	2,155,540	673,000	567,982	838,885	3,482,962	676,261
Income tax	985,752	173,714	1,058,173	619,786	4,198,952	7,996,857	6,430,817	2,566,204
Compiled net profit, (less income tax)	-345,627	- 22,727,494	- 13,151,060	- 40,803,477	10,781,303	- 10,896,422	38,130,073	34,221,114
Cash dividends paid	5,738,651	15,997,476	20,911,924	36,519,248	37,144,499	16,866,676	48,219,017	31,915,696
Stock dividends paid	-	-	-	8,925	18,040,019	458,378	1,101,178	77,510

Source: Tabulation sheets and published reports (Statistics of Income), of the Bureau of Internal Revenue, United States Treasury Department.

Represents deficit.

Prepared By: H. L. Wells,
Accounting Unit, NRA,
November 1935

During the eight year period, the profitable companies did a volume of business of $4,133,122,000, or 56.6 per cent of the total volume of the Industry, and their profits were $213,338,000, or 5.16 per cent of their volume. Their best year was in 1929 with profits of $46,148,000 or 6.46 per cent of sales, and the poorest year was 1932 with profits of $1,762,000 or 1.72 per cent of sales.

Although the number of companies reporting profits was considerably less than half of the total number of companies within the Industry, their volume of business was in many years considerably more than half of the total volume of the Industry.

This is due to the fact that two of the larger companies, Goodyear and Firestone, which are responsible for about 30 per cent of total sales of the Industry, have shown a consistent ability to make money. Every year during the period covered in this report, both companies showed profits with the one exception of 1932, when Goodyear suffered losses. The profitability of these two companies was due to particular conditions not found in the other large companies.

Exhibit 3, at the end of this chapter, shows a comparison of receipts and deductions of companies showing "net income" during 1926-1933.

Table 21 - Rubber Tire Companies Reporting Profits, 1926 - 1933
(Thousands of Dollars)

Year	Companies		Sales		Profits	
	Number	Percent of Total Industry	Amount	Percent of Total Industry	Amount	Percent of Sales Volume
1926	66	37.7	3833,799	87.8	353,028	6.36
1927	64	40.0	809,961	69.0	53,503	6.58
1928	48	31.2	711,417	65.2	31,586	4.44
1929	42	30.2	714,492	60.7	46,148	6.46
1930	20	20.4	436,171	43.6	9,921	2.27
1931	22	32.4	331,278	51.4	11,532	3.48
1932	12	18.3	103,685	20.4	1,767	1.72
1933	26	33.5	193,319	35.0	6,058	3.13
Total			4,133,122	56.6	213,338	5.16

Source: Compiled from data of Bureau of Internal Revenue, Harvey L. Wells, W. H. Cross, N.R.A. November, 1935.

5. INCREASING PERCENTAGE OF TIRE COMPANIES REPORTING LOSSES

The number of tire companies reporting losses to the Bureau of Internal Revenue, during the period 1926-1933, as shown in Table 22 varied from 109 in 1926 to 46 in 1931. This decrease in number does not indicate an increase in profitability, but is due to the fact that there are fewer companies in the Industry, the weaker having been forced out. Furthermore, the unprofitability of the Industry is illustrated by the fact that, although unprofitable companies decreased in number, they increased in percentage of total companies.

The percentage of companies reporting losses has never been less than 60.0 per cent, and in 1932, the percentage was a high of 81.8 per cent.

The volume of sales represented by the non-profitable companies varied from 31.0 per cent in 1927 to 79.6 per cent of the total volume of the Industry in 1933.

During the eight year period, these companies did a volume of business of $3,171,467,000 or 43.4 per cent of the entire Industry's volume and suffered a loss of $218,129,000 or 6.88 per cent.

Exhibit 4, at end of chapter, shows a comparison of receipts and deductions of companies showing "no net income" during the years 1926 through 1933.

Table 22 - Rubber Tire Companies Reporting Losses 1926-1933
(Thousands of Dollars)

	Companies		Sales		Losses	
Year	Number	Percent of Total Industry	Amount	Percent of Total Industry	Amount	Percent of Sales
1926	109	62.3	396,437	32.2	18,807	4.74
1927	96	60.0	363,619	31.0	15,173	4.17
1928	106	68.8	414,172	36.8	42,482	10.26
1929	97	69.8	462,301	39.3	35,367	7.65
1930	78	79.6	461,782	51.4	50,724	10.98
1931	46	67.4	313,195	48.6	24,683	7.88
1932	54	81.8	400,641	79.6	24,439	6.11
1933	52	66.7	359,270	65.0	6,404	1.78
Total			3,171,467	43.4	218,129	6.88

Source: Compiled from data of Bureau of Internal Revenue, Harvey L. Wells, and W. H. Cross, N.R.A. November 1935.

EXHIBIT III

RUBBER TIRE INDUSTRY

COMPARISON OF RECEIPTS AND DEDUCTIONS OF COMPANIES SHOWING "NET INCOME"
1926 - 1933 INCLUSIVE

	1933	1932	1931	1930	1929	1928	1927	1926
NUMBER OF RETURNS:								
From which income data compiled	26	12	22	20	42	48	64	66
Inactive returns, no data available	-	-	-	-	-	-	-	-
RECEIPTS, (taxable income)								
Gross sales, (less returns & allowances)	191,879,268	102,584,559	330,426,113	435,318,555	713,969,067	708,768,596	809,071,596	833,233,998
Gross receipts from other operations	1,439,312	100,367	1,263,071	852,126	523,410	2,648,015	888,920	565,269
Interest	740,042	550,285	6,076,714	6,719,259	6,126,898	3,604,275	3,400,944	4,039,260
Rents	1,359,999	1,386,427	2,813,331	2,782,167	1,906,800	Not segregated	Not segregated	Not segregated
Profit from sale of capital assets	30,030	81,392	16,921	58,921	549,717	42,803	" "	" "
Miscellaneous receipts	3,866,927	819,471	4,231,996	5,237,116	6,513,000	3,929,353	6,693,907	18,515,031
RECEIPTS, (tax-exempt income)								
Dividends from domestic corporations	23,346	108,000	1,606,246	4,588,722	11,649,139	8,853,137	8,298,398	35,809,515
Interest on tax-exempt obligations	54,123	50,024	40	92,977	57,838	1,347	36,881	4,398
TOTAL COMPILED RECEIPTS	199,393,047	105,680,525	346,434,432	455,649,843	741,295,869	727,847,526	828,390,646	892,167,471
STATUTORY DEDUCTIONS								
Cost of goods sold	115,304,048	62,301,247	251,035,487	356,116,087	551,372,278	568,948,271	613,987,639	691,050,057
Compensation of officers	1,192,570	592,554	1,329,165	1,207,123	2,081,475	2,055,321	Not segregated	Not segregated
Interest paid	3,727,139	1,316,591	9,231,490	9,869,221	11,647,356	10,134,977	14,070,235	19,629,030
Taxes paid, (other than income tax)	9,226,834	1,703,257	2,489,184	3,044,719	3,873,196	3,392,415	3,736,122	5,101,579
Bad debts	4,681,702	5,163,651	2,589,790	914,281	2,997,141	2,445,316	4,182,520	Not segregated
Depreciation	10,344,983	5,034,489	14,091,073	15,736,822	18,426,450	15,685,702	19,759,119	14,248,682
Depletion	-	-	56,250	-	-	-	-	-
Loss from sale of capital assets	140,000	10,100	205,563	56,263	Not segregated	Not segregated	Not segregated	Not segregated
Miscellaneous deductions	47,732,142	27,623,175	52,816,014	58,164,571	100,550,792	90,602,808	112,921,249	106,543,584
TOTAL STATUTORY DEDUCTIONS	192,349,418	103,745,064	333,844,016	445,109,087	690,948,688	693,264,810	768,656,884	836,572,932
Compiled net profit or deficit	7,043,629	1,935,461	12,590,416	10,540,756	50,347,181	34,582,716	59,733,762	55,594,539
Statutory net income of deficit	6,966,160	1,777,437	10,984,130	5,859,057	38,640,204	25,728,232	51,398,483	19,780,626
Net loss for prior year	-	512,012	2,155,540	673,000	567,982	838,885	3,482,962	676,261
Income tax	985,752	173,714	1,058,173	619,786	4,198,952	2,996,857	6,430,817	2,566,204
Compiled net profit, (less income tax)	6,057,877	1,761,747	11,532,243	9,920,970	46,148,229	31,585,859	53,302,945	53,028,335
Cash dividends paid	4,183,892	5,508,702	16,260,837	24,514,948	36,401,882	15,461,645	15,558,045	24,232,630
Stock dividends paid	-	-	-	-	18,002,274	418,378	1,091,951	61,810

Source: Tabulation sheets and published reports (Statistics of Income), of the Bureau of Internal Revenue, United States Treasury Department.

Prepared By: H. L. Wells,
Accounting Unit, NRA,
November 1935.

EXHIBIT IV

RUBBER TIRE INDUSTRY

COMPARISON OF RECEIPTS AND DEDUCTIONS OF COMPANIES SHOWING "NO NET INCOME"
1926 - 1933 INCLUSIVE

	1933	1932	1931	1930	1929	1928	1927	1926
NUMBER OF RETURNS:								
From which income data compiled	52	54	46	78	97	106	96	109
Inactive returns, no data available	5	7	5	8	11	18	15	Not shown
RECEIPTS, (taxable income)								
Gross sales, (less returns & allowances)	357,861,150	398,842,304	308,716,497	459,220,335	456,112,296	413,669,977	362,878,003	395,809,411
Gross receipts from other operations	1,408,938	1,799,115	4,478,495	2,561,549	6,239,136	501,991	741,064	627,624
Interest	6,492,844	7,090,193	1,681,828	1,687,043	1,299,298	1,407,898	980,649	621,786
Rents	2,101,192	1,797,300	758,944	1,978,884	2,816,150	Not segregated	Not segregated	Not segregated
Profit from sale of capital assets	138,793	4,529	940	21,653	418,412	38,993	"	"
Miscellaneous Receipts	8,473,081	8,475,453	3,019,166	4,566,671	721,317	9,159,002	7,989,625	2,995,391
RECEIPTS, (tax-exempt income)								
Dividends from domestic corporations	90,731	4,913,253	3,072,894	7,347,143	72,106	56,888	62,745	133,299
Interest on tax-exempt obligations	785,903	554,142	62,610	28,700	31,106	39,677	40,065	700
TOTAL COMPILED RECEIPTS	377,352,632	423,476,289	321,991,374	477,411,978	467,709,821	424,874,426	372,692,151	400,188,211
STATUTORY DEDUCTIONS								
Cost of goods sold	275,714,441	288,383,440	221,217,666	354,932,724	366,632,114	333,368,367	276,997,389	330,707,876
Compensation of officers	945,237	1,432,280	1,826,650	1,967,669	2,433,365	1,665,922	Not segregated	Not segregated
Interest paid	13,173,765	16,982,446	10,230,598	13,524,408	11,130,993	13,816,827	12,438,863	6,567,543
Taxes paid, (other than income tax)	4,996,553	5,594,757	3,700,930	4,265,450	3,513,895	3,802,066	3,283,104	2,068,064
Bad debts	4,956,477	11,579,631	6,024,971	9,760,108	4,861,574	5,487,471	3,536,627	Not segregated
Depreciation	16,950,474	21,895,641	18,631,429	17,825,035	12,134,485	11,200,764	8,865,657	8,209,856
Depletion	10,953	60,000	-	12,812	-	-	-	-
Loss from sale of capital assets	850,893	205,192	1,357,956	1,565,224	Not segregated	Not segregated	Not segregated	Not segregated
Miscellaneous deductions	66,157,343	101,832,143	83,684,477	124,282,995	102,370,321	98,015,290	82,743,383	71,442,093
TOTAL STATUTORY DEDUCTIONS	383,756,136	447,965,530	346,674,677	528,136,425	503,076,747	467,356,707	387,865,023	418,995,432
Compiled net profit or deficit	- 6,403,504	- 24,489,241	- 24,683,303	- 50,724,447	- 35,366,926	- 42,482,281	- 15,172,872	- 18,807,221
Statutory net income of deficit	- 7,280,138	- 29,956,636	- 27,818,807	- 58,100,290	- 35,470,138	- 42,578,846	- 15,275,682	- 18,941,220
Net loss for prior year	-	-	-	-	-	-	-	-
Income tax	-	-	-	-	-	-	-	-
Compiled net profit, (less income tax)	- 6,403,504	- 24,489,241	- 24,683,303	- 50,724,447	- 35,366,926	- 42,482,281	- 15,172,872	- 18,807,221
Cash dividends paid	1,554,759	10,488,774	4,651,087	12,004,300	742,617	1,405,031	32,660,972	7,683,066
Stock dividends paid	-	-	-	8,925	37,745	40,000	9,227	15,700

Source: Tabulation sheets and published reports (Statistics of Income), of the Bureau of Internal Revenue, United States Treasury Department.

\- Represents deficit.

Prepared By: H. L. Wells,
Accounting Unit, NRA,
November 1935.

6. INCREASING GROSS PROFITS IN TIRE INDUSTRY

Gross profits in the Tire Manufacturing Industry during the period 1926-1933, as shown in Table 23, based upon reports of the Bureau of Internal Revenue, varied from 16.07 per cent of gross sales in 1926 to 30.06 per cent in 1932. The average percentage for the eight year period was 22.26 per cent.

In actual amounts, gross profits were greatest in 1927 with $280,965,000. Yearly thereafter, gross profits declined to $150,742,000 in 1932. However, in 1933, the downward trend was reversed, and gross profits increased to $158,722,000, representing for the first time since 1927 an increase over the gross profits of the preceding year.

It is interesting to note that as gross profits decreased in amount they increased in percentage of gross sales. Raw material costs were declining rapidly during most of the period for which figures are shown.

However fixed charges on used and unused manufacturing facilities, lethargy in reducing administrative and distribution costs as sales diminished in volume, delayed passing on reduced costs to the consumer and reduced amount of net profits as will be shown.

Table 23 - Gross Profit of Tire Manufacturing Industry,

1926-1933

(Thousands of Dollars)

Year	Number of Companies	Gross Sales	Cost of Goods Sold	Gross Profits Amount	Gross Profits Percent of Gross Sales
1926	175	1,229,043	1,031,758	307,285	16.07
1927	160	1,171,950	890,985	280,965	23.97
1928	154	1,123,439	902,317	220,122	19.61
1929	139	1,170,081	918,004	252,077	21.54
1930	90	894,139	711,049	183,090	20.51
1931	68	639,143	472,253	166,890	26.11
1932	66	501,427	350,685	150,742	30.06
1933	78	549,740	391,018	158,722	28.87
Total		7,278,362	5,658,069	1,620,293	22.26

Source: Compiled from data furnished by Bureau of Internal Revenue, Industrial Sub-Group No. 25

7. DECREASING NET PROFITS IN TIRE INDUSTRY

Net profits in the Tire Manufacturing Industry, during the period 1926-1933, as shown in Table 24, based on reports of the Bureau of Internal Revenue, have averaged less than two per cent (1.88) of total compiled receipts. The Industry showed a net profit in only four of the eight years included in this survey. The percentage of net profits was greatest in 1937, when net profits are estimated at 3.71 per cent of total receipts. In 1929, net profits were only 1.24 per cent of total revenue.

Net losses were incurred in four of the eight years, and were greatest in 1930 when they are estimated at 4.31 per cent of total revenue. In 1928, when other industries were showing profits, the rubber tire industry showed a net loss of 0.15 per cent of total revenue. In three depression years, 1930-31-32, the Tire Industry showed a net loss of over $74,000,000. In 1933, the Industry, for the first time in four years, showed a profit, although a very small profit, about one-tenth of one per cent of total revenue (0.11).

There are some authorities who believe the Tire Industry can operate at a profit only during those years when the price of crude rubber is increasing. The adherents of this theory point out that in 1928, when the price of crude rubber was falling, the industry showed a net loss; in 1929, when the price of crude rubber was increasing during the greater part of the year, the Industry showed a net profit; but, in 1930, 31 and 32, when the price steadily declined, the Industry showed net losses each year. In 1933, when crude rubber showed the first rise in price for four years, the Industry showed a net profit for the first time in four years.

Table 24 - Net Profits of Tire Manufacturing Industry
1926-1933
(Thousands of Dollars)

Year	Number of Companies	Total Compiled Receipts	Total Statutary Reductions	Compiled Net Profit Amount	Compiled Net Profit Per cent
1926	175	$1,292,356	$1,255,568	$36,788	2.85
1927	160	1,201,083	1,156,522	44,561	3.71
1928	154	1,152,722	1,160,622	7,900 d	0.15 d
1929	139	1,209,006	1,194,026	14,980	1.24
1930	98	933,062	973,246	40,184 d	4.31 d
1931	68	668,426	680,519	12,093 d	1.81 d
1932	66	529,157	551,711	22,554 d	4.26 d
1933	78	576,746	576,106	640	0.11
Total		7,562,558	7,548,320	14,238	1.88

d=deficit

Source: Compiled from data furnished by Bureau of Internal Revenue, Industrial Sub-Group No. 25

DECREASING VALUE OF FIXED ASSETS OF TIRE INDUSTRY

The fixed assets of the Tire Manufacturing Industry, on the bases of data issued by the Bureau of Internal Revenue, as shown in Table 25, are decreasing in value and in importance to total assets of the Industry.

The decrease in dollar value has been from $407,627,000 in 1930 to $305,893,000 in 1933, a decrease of $101,734,000, or 24.9 per cent.

The decrease in percentage value of total assets has been from 34.70 per cent in 1930 to 30.97 per cent in 1933.

The explanation for this decrease is found in the depreciation charges of the Industry and also because very little new construction has taken place.

Table 25 - Percentage Fixed Assets are of Total Assets

1930 - 1933
(Thousands of Dollars)

Year	Number of Companies	Fixed Assets	Total Assets	Percentage of Total Assets Represented by Fixed Assets
1930	92	$407,627	$1,174,604	34.70
1931	65	358,982	1,095,592	32.77
1932	64	334,110	1,034,549	32.30
1933	76	305,893	987,849	30.97

Source: Compiled from data of Bureau of Internal Revenue, Industrial Sub-Group No. 25

9. INCREASED DEFICITS DUE TO PAYMENT OF UNEARNED DIVIDENDS

The amount of dividends paid by the Rubber Tire Industry is shown in Table 26. Data are not available to show dividends paid by the other divisions of the Industry. It will be seen from Table 26 that the Tire Industry paid out in dividends in the period from 1926 through 1933, $232,999,197, despite the fact that the losses of the Industry during the same period were $4,791,590, making a total deficit of $237,790,787.

The profits of the companies, reporting a net income during this period, were $213,338,205, and their dividends were $161,696,994 or 75.79 per cent of profits, as shown in Table 27. The percentage of dividends to profits varied from 31.24 per cent in 1929 to 312.68 per cent in 1933.

The deficits of the companies, reporting a net deficit during this period, were $218,129,795, and their dividends were $71,302,203, or 32.69 per cent of deficits as shown in Table 28, making a total of deficits of $289,431,998.

Year	Cash Dividends	Stock Dividends	Total Dividends	Net Profits(a)	Net Deficits(b)	Percent Dividends are of Profits	L Losses
1926	$ 31,915,694	77,510	$ 31,993,204	$34,221,114	$ -	93.49	-
1927	48,219,017	1,101,178	49,320,195	38,130,073	-	129.35	-
1928	16,866,676	458,378	17,325,054	-	10,896,422	-	159.00
1929	37,144,499	18,040,019	55,184,518	10,781,303	-	511.85	-
1930	36,519,248	8,925	36,525,173	-	40,803,477	-	89.52
1931	20,911,924	-	20,911,924	-	13,151,060	-	159.01
1932	15,997,476	-	15,997,476	-	22,727,494	-	70.39
1933	5,738,651	-	5,738,651	-	345,627	-	1660.36
Total	213,313,187	19,686,010	232,999,197	83,132,490 -	87,924,080 4,791,590	-	-

(a) Net Profits less Income Tax and Prior to Payment of Dividends

(b) Net Deficits prior to payment of Dividends.

Source: Compiled from data furnished by Bureau of Internal Revenue, H.L.Wells, W.H.Cross,NRA Nov. 1935

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Table 27 - Dividends Paid by Rubber Tire Companies

Reporting Net Income - 1926 - 1933

Year	Cash Dividends	Stock Dividends	Total Dividends	Net Profits(a)	Percent Dividends are of Profits
1926	$24,232,630	$ 61,810	$24,294,440	$53,028,335	45.81
1927	15,558,045	1,091,951	16,649,996	53,302,945	31.24
1928	15,461,645	418,376	15,880,023	31,585,859	50.28
1929	36,401,882	18,002,274	54,404,156	46,145,229	117.69
1930	24,514,948	- -	24,514,948	9,920,970	247.10
1931	16,260,837	- -	16,260,837	11,532,243	141.00
1932	5,508,702	- -	5,508,702	1,761,747	312.68
1933	4,183,892	- -	4,183,892	6,057,877	69.07
Total	142,122,581	19,574,413	161,696,994	213,335,205	75.79

(a) Net Profits less Income Tax and Prior to Payment of Dividends.

Source: Compiled from data furnished by Bureau of Internal Revenue, H. L. Wells, W. H. Cross, November 1935.

Table 28 - Dividends Paid by Rubber Tire Companies

Reporting No Net Income - 1926 - 1933

Year	Cash Dividends	Stock Dividends	Total Dividends	Net Deficits(b)	Percent Dividends are of Deficits.
1926	$7,683,066	$ 15,700	$ 7,698,766	$18,807,221	40.94
1927	32,660,972	9,227	32,670,199	15,172,872	215.32
1928	1,405.031	40,000	1,445,031	42,482,281	3.40
1929	742,617	37,745	780,362	35,366,926	0.22
1930	12,004,300	8,925	12,013,225	50,724,447	23.68
1931	4,651,087	-	4,651,037	24,683,303	18.84
1932	10,488,774	-	10,488,774	24,489,241	42.83
1933	1,554,759	-	1,554,759	6,403,504	24.28
Total	71,190,606	111,597	71,302,203	218,129,795	32.69

(b) Net Deficits prior to payment of Dividends.

Source: Compiled from data furnished by Bureau of Internal Revenue, H. L. Wells, W. H. Cross, N.R.A. November 1935.

10. TAXES PAID BY TIRE COMPANIES

Complete tax data are available only for the Rubber Tire Division and not for the Rubber Industry as a whole. These data are summarized in Table 29 and show for the period 1926-1933, the amount of income tax and other taxes paid by the tire division and the percentage taxes are of sales.

It will be seen that in the eight year period, 1926-1933, the Industry paid a total tax bill of $87,820,000, representing 1.20 percent of the total sales of $7,305,000,000. During this period, taxes have varied from 0.79 percent of sales in 1926 to 2.75 percent of sales in 1933.

The tax bill of the Industry prior to 1932 seldom exceeded 1.00 percent of sales. However, in the latter part of 1932, the Federal Government began the imposition of new taxes which brought the tax bill of the Industry to heights undreamed of in earlier years. The new taxes were excise and cotton processing taxes.

The excise tax is 2.25 cents per pound on tires and 4.00 cents per pound on inner tubes, and during 1933, 1934, and 1935, averaged $27,000,000 per year. This is almost 400 percent greater than the total tax bill of the Industry in 1932.

The Cotton Processing Tax levied a tax of 4.2 cents per pound on raw cotton. Although exact statistics are not available the probable effect of this was to impose upon the Tire Industry an additional tax burden about equal to the excise tax. The Akron Beacon Journal Newspaper estimates that this tax levied $20,000,000 annually upon the Tire Industry. This is almost 300 percent greater than the total tax bill of the Industry in 1932.

The above estimates of the excise and processing taxes gives credence to the belief held in the Industry that the Industry pays as much in taxes as it does in wages. For example, in 1933 the Industry paid in wages $54,737,000. The average tax bill of the Industry was $57,000,000, estimated as follows:

Income Tax (average 1926 to 1933)	$3,000,000
Other Tax " " " "	7,000,000
Excise tax (" 1933-34-35)	27,000,000
Processing Tax (average 1934-1935)	20,000,000
Total taxes	57,000,000
Wages (1933)	54,000,000

The invalidation of the cotton processing tax will, of course, reduce the tax bill of the Tire Industry, but it is problematical, in view of the financial plight of the Industry, whether this saving will be passed to the consumer.

Table 29 - Taxes Paid by Rubber Tire Industry,

1926-1933

(Thousands of Dollars)

Year	Sales	Income Taxes	Other Taxes	Total Taxes	Percent Taxes are of Sales.
1926	$1,230,236	$2,566	$7,170	$9,736	0.79
1927	1,173,580	6,430	7,019	13,450	1.15
1928	11,125,589	7,997	7,194	15,191	1.35
1929	1,176,843	4,199	7,387	11,586	0.98
1930	897,953	618	7,310	7,928	0.88
1931	644,884	1,058	6,190	7,248	1.12
1932	503,326	174	7,298	7,472	1.48
1933	552,589	986	14,223	15,209	2.75
Total	7,305,000	24,028	63,792	87,820	1.20

Source: Compiled from data of Bureau of Internal Revenue, H. L. Wells, W. H. Cross, N.R.A. November 1935.

11. TRANSFER OF CAPITAL AND PRODUCTION ABROAD

Because of tariffs, import quotas, and other factors, the American Rubber Industry, to maintain its position in world markets, has been forced to export capital and trained personnel for the purpose of establishing and operating factories in foreign countries. The exact amount of capital sent abroad for this purpose is not known, but it is estimated that 16 branch factories have been established in 9 foreign countries by American Companies, as shown in Table 30.

With the establishment of a foreign branch factory, not only is that particular market lost to American exports, but also those markets are lost which can be economically served from that branch. For example, the establishment of branch factories in Canada, Australia, and England, has resulted in the practical exclusion of American made tires from most of the British Empire. Also, the establishment of factories in Argentina not only closes that market but threatens the markets of the neighboring South American countries.

The newer factories built in foreign countries have the benefit of the home factory's experience gained from years of operation and they are equipped with the most modern and up-to-date machinery. Also, their labor costs are lower, with the result that their products are threatening to drive American made rubber products out of international commerce.

The following quotations taken from the statement of the Goodyear Company filed in 1935 at the Securities and Exchange Commission, gives some indication of the extend of the operations of branch factories:

"The English plant was built in 1927 and owns approximately 74.3 acres of land, has a combined floor space of approximately 400,789 square feet, and employs an average of more than 1,405 people. The English plant, located at Wolverhampton, England, consists of 31 buildings, all of which are of the modern factory type."

"The Australian plant was built in 1927, and owns approximately 21.2 acres of land, has a combined floor space of 360,979 square feet, and employs an average of more than 845 people. The Australian plant, located at Sydney, Australia, consists of 13 buildings, all of which are of the modern factory type."

The possibility has been suggested that the United States tariff policy is responsible for the closing of world markets to American manufactured products. Without attempting to answer definitely this question, the evidence at hand indicates that, prior to the passage of the Fordney-McCumbur tariff in 1922, only two American rubber companies had branch factories in foreign countries, namely, Goodyear and Firestone with small factories in Canada, and that, within the decade subsequent to the passage of the Fordney-McCumbur tariff, American companies has established 15 factories in 9 foreign countries. Also during this period, the percentage of international shipments of pneumatic casings represented by the United States exports declined from 31.4 per cent in 1929 to 22.0 per cent in 1933, and the United Kingdom replaced the United States as the world's principal exporting country of pneumatic casings. (*) There are so many factors affecting international trade that on the basis of present information it is difficult to ascribe the present situation to any one factor.(*)

Table 30 - Foreign Branch Factories of American Companies,1935.

Company	Countries
Firestone	Argentina, Canada, England, Spain
General	Mexico (License arrangement)
Goodrich	Canada, France, Japan
Goodyear	Argentina, Australia, Canada, England, Java
India-	Scotland(License arrangement)
Seiberling	Canada
United States	Canada

Source: Compiled from data submitted to Securities and Exchange Commission.

Source: - "Rubber Industry Letter No. 16" - Bureau of Foreign and Domestic Commerce - October 15, 1934.(*)

12. DECREASING IMPORTANCE OF UNITED STATES IN CRUDE RUBBER CONSUMPTION

The consumption of crude rubber in the United States may be used as an indication of the condition of the rubber industry in the United States. In 1924, as shown in Table 30-A, the United States consumed about 75 per cent of total world production. Yearly thereafter, however, the percentage declined, and, in 1974, the United States consumed only 43.2 per cent of the total world production.

On the basis of actual tonnage consumed, the United States increased its consumption every year until 1929, when the peak was reached with 528,602 long tons. The next three years witnessed a falling off in consumption, reaching a low in 1932 with 383,768 long tons. In 1933 and 1934, consumption increased and in 1934 was greater than that of any year prior to 1929.

The statistics of crude rubber consumption indicate that the period of growth of American rubber industry is apparently drawing to a close, and that the rubber industry is developing in foreign countries, at the expense of the American industry. The increasing importance of foreign countries is the result of (1) the exportation of American capital whereby branch factories of American companies were established in foreign countries, and (2) the development of domestic industries in many countries. These factors have driven American rubber footwear out of world markets and have made American rubber tires of secondary importance in world markets. There are some authorities who believe that it is only a matter of a short time before foreign made tires invade the American domestic market, just as foreign made footwear and novelties have already done.

If the American rubber industry continues its policy of self-destruction through price wars, payment of unearned dividends, excessive capitalization, and lack of a national industry viewpoint, it will be unable to resist successfully a foreign attack.

Table 30-A Crude Rubber; World Production and United States Imports - 1921 - 1974 (a)

(Long tons)

Year	World Production	United States Net Imports (a)	Per cent of World Production
1921	301,512 (b)	179,736 (b)	59.6 (b)
1922	406,394	296,794	72.9
1923	408,641	301,537	73.8
1924	425,901	319,013	74.9
1925	458,485	335,596	73.0
1926	624,312	399,972	64.1
1927	615,255	403,471	65.6
1928	662,741	407,573	61.5
1929	863,558	528,602	62.3
1930	817,731	457,432	55.9

1931	799,700 (c)	476,193 (c)	59.5 (c)
1932	708,800	393,768	55.6
1933	853,100	398,365	46.7
1934	1,016,715	479,172	43.2

(a) Excludes Re-Exports

Source: (b) Commerce Yearbook, 1933, Page 382

(c) Unpublished Data of Rubber Division, Bureau of Foreign and Domestic Commerce.

12. A RECORD OF INSOLVENCIES IN RUBBER INDUSTRY

The total number of insolvencies in the Rubber Manufacturing Industry, during the period of 1927 through 1934, is estimated by Dun and Bradstreet, as shown in Table 31, at 104 insolvencies with liabilities of $15,539,738. The number of insolvencies is evenly divided between tires and other rubber produces with 52 insolvencies for each division. However, the amount of liabilities has been almost 100 per cent greater in tires than in other rubber products, the amounts being $10,310,866 and $5,228,873 respectively.

The year of the largest number of failures was 1928, with 20 insolvencies, and in that year liabilities were also greatest with $4,848,163.

The year of the least number of failures was 1934, when no failures in tire manufacturing were recorded, and only 5 failures were in other rubber products with liabilities listed at $62,501. As this is the year in which the Industry operated under the Code, the remarkably good showing made by the Industry is doubtless attributable both to the Code and to improved business conditions. It is interesting to note that in no year of the depression period, 1929-1934, was the number of insolvencies or the amount of liabilities as great as in the pre-depression year of 1928, when sales were highest and the Industry enjoyed one of its most profitable years.

One of the reasons, perhaps, for the decreased number of failures is the fact that by 1932, many of the weaker companies had been eliminated, and with the rise in the price of crude rubber and resulting increase in value of inventories, the Industry was able to take advantage of the improvement in business. The decrease in number of bankruptcies in 1933 and 1934 gives credence to the belief of some authorities that the rubber industry can operate at a profit only in a rising crude rubber market.

The effect of bankruptcies and mergers within the tire industry was to hasten the development of concentration of manufacture to a few establishments. The extent of such concentration is shown by the Census of Manufactures which shows that from 1927 to 1933, the number of tire manufacturing establishments decreased from 109 to 54; the number of wage earners per establishment increased from 718 to 1,204; and the number of tires produced per establishment increased from 590,500 to 1,033,205;

Such a rapid decrease in the number of establishments, accompanied by the substantial increase in the average number of wage earners employed, and the increased output per establishment clearly indicates the extent of concentration which is taking place within the industry.

Table 31 - Insolvencies in Rubber Industry

1927-1934

Year	Tire Manufacturing Number	Tire Manufacturing Liabilities (a)	Other Rubber Manufacturing Number	Other Rubber Manufacturing Liabilities	Total Rubber Manufacturing No.	Total Rubber Manufacturing Liabilities
1927	13	$1,080,134	4	$1,576,900	16	$2,657,034
1928	14	4,609,963	6	238,200	20	4,848,163
1929	7	1,131,000	4	268,000	11	1,399,000
1930	5	465,200	4	67,200	9	532,400
1931	9	1,819,938	8	1,953,170	17	3,173,108
1932	3	25,400	14	923,803	17	949,203
1933	2	1,779,341	7	139,968	9	1,919,309
1934	none	-----	5	62,351	5	62,351
Total	52	$ 10,919,236	52	$5,229,972	104	$15,589738

Sources: (a) Letter of Dun & Bradstreet, Inc. to T.H. Cross of N.R.A. January 25, 1934.

(b) Dun & Bradstreet Monthly Review, August, 1934, Page 14, May, 1933, Page 9.

D. WAGES

1. EFFECT OF DEPRESSION AND CODES ON HOURLY WAGES

Average hourly wage rates paid by the tire and other rubber manufacturing industries during the past decade, 1926-1935, are shown in Table 32. It will be seen that the wage rate in the Tire Industry is considerably higher than in the other rubber industry. Several reasons have been advanced for this, but the two most widely held are that first, tire manufacturing is a new industry with an increasing demand for skilled workers, secondly, tire manufacturing is centered in one locality, Akron, where the concentration of labor tends to maintain a high wage level.

In tire manufacturing, average hourly wages decreased from 67.7 cents in 1929 to 61.9 cents in 1933, a decrease of 5.8 cents, or 8.6 per cent. Since 1933, wages have increased, and in June, 1935, were 84.5 cents, the highest point in the past decade.

In other rubber manufacturing, average hourly wages decreased from 55.0 cents in 1929 to 45.5 cents in 1932, a decrease of 9.5 cents. or 17.2 per cent. Unlike tire manufacturing, there was a further decrease in 1933, when average hourly wages reached their low point of 44.1 cents, a decrease of 10.9 cents, or 18 per cent from the 1929 level. Since 1932, wages have increased and in June, 1935, were 54.0 cents. The wage increase for this division, however, has not been as great as that for the tire division. Present hourly wages in tires are at an all time peak, but in other rubber, present hourly wages are below the 1931 level.

Table 32 - Average Hourly Wages 1926-1935

Year	Tire Manufacturing (cents)	Other Rubber Manufacturing (cents)
1926	68.5	55.6
1927	68.4	55.5
1928	67.4	54.7
1929	67.7	55.0
1930	68.0	55.1
1931	67.3	54.8
1932	61.9	45.5
1933	63.2	44.1
1934	77.6	50.2
1935 (June)	84.5	54.0

Source: Bureau of Labor Statistics, and prior to 1932, N.I.C.B. adjusted by N.R.A.

2. EFFECT OF DEPRESSION AND CODES ON WEEKLY WAGES

Average weekly wages for the decade 1926-1935 are shown in Table 33.

In tire manufacturing, weekly wages declined from $29.95 in 1929 to $20.22 in 1933, a decrease of $9.73 or 32.5 per cent. During this decade, weekly wages were highest in 1923 when they averaged $31.52. Yearly thereafter wages declined, reaching their low point in 1932. Since then, wages have increased, and in June 1935, were $25.85, averaging slightly higher than the 1931 level.

In other rubber manufacturing, weekly wages declined from $23.49 in 1929 to $17.19 in 1933, a decrease of $6.30, or 26.8 per cent. The high point occurred in 1927 when weekly wages averaged $23.64. The low point was 1933, as described. Since then, weekly wages have increased, and in June, 1935, $19.00, slightly above the 1931 level.

Table [illegible] - Average Weekly Wages 1926-1935

Year	Tire Manufacturing	Other Rubber Manufacturing (b)
1926	$30.54	$[illegible].76
1927	[illegible]9.91	[illegible]3.64
1928	31.52	23.53
1929	29.95	23.49
1930	28.77	23.22
1931	25.[illegible]5	20.54
1932	20.67	17.85
1933	20.32	17.19
1934	23.50	17.95
1935 (June)	25.85	19.00

Source: Bureau of Labor Statistics,
(b) B. L.S. and Prior to 1933 N.I.C.B.
with N.R.A. adjustments.

3. EFFECT OF DEPRESSION AND CODES ON ANNUAL PAYROLLS

In the Rubber Manufacturing Industry, as a whole, annual payrolls, as shown in Table 34, decreased from $207,[illegible],000 in 1929 to $84,032,000 in 1933, a decrease of $123,500,000 or 59.5 per cent. During the period 1926-1934, the high point occurred in 1928, when annual payrolls are estimated at $211,000,000. Yearly thereafter, annual payrolls decreased, reaching their low point in 1933. Since then, payrolls have increased and in 1934 are estimated at $127,036,000. Using 1929 as a base, the 1934 payrolls are 61.2 per cent of normal.

In tire manufacturing, annual payrolls decreased from $127,038,000 in 1929 to $46, 340, 000 in 1933, a decrease of $81,840,000 or 64.4 per cent. During the period 1926-1934, the high point occured in 1928, when annual payrolls are estimated at $131,093,000. Payrolls declined yearly thereafter, reaching their low point in 1933. Since then, an upturn has occurred, and in 1934 annual payrolls are estimated at $75,038,000, or expressed on the 1929 index, 59.1 normal.

In other rubber manufacturing, annual payrolls decreased from $80,444,000 in 1929 to $38,792,000 in 1933, a decrease of $41,652,000 or 51.8 per cent. As in the case of tire manufacturing, annual payrolls were greatest in 1928 when they were estimated at $80,388,000. Since 1932, payrolls have increased, and in 1934 are estimated at $51,948,000 or 64.6 per cent of normal.

Table 34 - Annual Payrolls 1926-1934

(1929 = 100.0)

Year	Tire Manufacturing		Other Rubber Manufacturing		Total	
	Amount (000)	Index	Amount (000)	Index	Amount (000)	Index
1926	$120,328	94.7	$72,644	90.3	$192,972	92.9
1927	120,172	94.5	78,260	97.3	198,432	95.6
1928	131,092	103.2	80,808	100.5	211,900	102.6
1929	127,088	100.0	80,444	100.0	207,532	100.0
1930	88,972	70.0	63,752	79.2	152,724	73.6
1931	63,024	49.6	49,556	61.6	112,580	54.2
1932	45,240	35.6	38,792	48.2	84,032	40.5
1933	54,756	43.1	44,304	55.1	99,060	47.7
1934	75,088	59.1	51,948	64.6	127,036	61.2

Source: B.L.S. with N.R.A. adjustments.

4. INCREASING IMPORTANCE OF WAGES AS AN ELEMENT OF COSTS

Data presented by the Census of Manufactures, as shown in Table 35, indicate that wages are increasing in importance as an element of cost. This is perhaps due to the fact that prices of raw materials have decreased more than have wages.

In tire manufacturing, wages have increased from 13.0 percent of cost in 1925 to 18.3 percent in 1933, the latest year for which data are available.

In other rubber manufacturing, wages have increased from 21.0 percent in 1925 to 25.6 percent in 1933.

It is interesting to note that although wages in the Tire Industry are considerably higher than those in the other rubber manufacturing industries, yet they form a smaller percentage of total costs. Large scale production in the Tire Industry and a greater degree of mechanization is responsible for lower proportionate labor costs.

Table 35 - Percentage of Cost Represented by Labor

1925 - 1933

Year	Tire Manufacturing			Other Rubber Manufacturing		
	Total Value (000)	Total Wages (000)	Wages as percent of Value of Product	Total Volume (000)	Total Wages (000)	Wages as percent of Total Value
1925	$925,002	$120,614	13.0	335,804	70,671	21.0
1927	869,688	120,064	13.8	355,389	78,009	22.0
1929	770,177	127,082	16.5	347,284	80,224	23.1
1931	406,283	63,039	15.5	207,982	49,508	23.8
1933	299,313	54,737	18.3	173,430	44,379	25.6

Source: U. S. Census of Manufactures

5. HIGH WAGES PAID BY TIRE INDUSTRY IN COMPARISON WITH ALL OTHER INDUSTRY

Average annual wages received by rubber-tire workers have been, on the average, 15 percent higher than the average wages received by workers in all manufacturing industry. Table 36 shows the average annual wages paid in the tire manufacturing industry and in all manufacturing industry for the years 1921 through 1933, and the percentage differentials in favor of tire manufacturing. The data are the average income received by all employees, both part and full-time workers and indicate that employees in the Tire Industry averaged, during these years, wages which were 14.5 to 19 percent higher than the wages received by workers in manufacturing industry in general.

Table 36 - Comparison of Annual Wages Paid by the Tire Manufacturing Industry and by all manufacturing industry, for Census years 1921-1933.

Year	Annual Wages Paid		Percent Differential in Favor of Tire Manufacturing
	Tire Manufacturing	All Manufacturing Industry	
1921	$1,350	$1,180	14.5
1923	1,470	1,255	17.0
1925	1,475	1,280	15.0
1927	1,535	1,300	18.0
1929	1,530	1,315	16.0
1931	1,280	1,110	15.5
1933	1,035	869	19.0

Source: Basic data from Census of Manufactures for the years noted, "Rubber Products", Rubber Tire and Inner Tube Industry. Computed by NRA, Division of Research and Planning, by dividing total annual wages by average number of wage earners, both full and part-time.

E. EMPLOYMENT AND HOURS

1. DECREASE IN AVERAGE WEEKLY HOURS IN TIRE DIVISION

Table 37 shows the average weekly hours for the period, 1926 through June 1935. Average weekly hours declined from 44.2 in 1929 to 31.7 in 1933, a decrease of 12.5 hours, or 28 percent. In 1934 average weekly hours declined further to 30.7.

The decrease in weekly hours was the result of the policy of the Industry to "share the work". In 1931, the Industry, especially establishments in Akron - changed from an 8-hour shift to a 6-hour shift and from a six to a four or five-day week. By this means, the Industry managed to lessen for labor the hardships attendant upon the depression. Because of this policy, the Code provision limiting hours to 36 hours per week accomplished little reemployment inasmuch as the Industry was already on a 30-hour week.

Unfortunately, however, it now seems (November, 1935) that the thirty-hour week is to be abandoned, and the Goodyear Tire and Rubber Company of Akron has announced its decision to return to the 8-hour day and 40-hour week. (See Akron Newspapers, November, 1, 1935.)

Table 37 - Average Weekly Hours in Tire Division

1926 - 1935

Year	Average Hours Weekly Number	Index (1929 = 100.0)
1926	44.7	101.1
1927	45.3	102.5
1928	46.8	105.9
1929	44.2	100.0
1930	42.3	96.0
1931	37.9	85.6
1932	32.7	73.8
1933	31.7	71.8
1934	30.7	69.5
1935 (June)	30.9	69.9

Source: From 1932 to date, basic data from Bureau of Labor Statistics for "Rubber Tires and Inner Tubes," as published in Trend of Employment; for previous years from National Industrial Conference Board, Service Letter adjusted to Bureau of Labor Statistics series. Index computed by NRA, Research and Planning Division.

2. DECREASE IN AVERAGE WEEKLY HOURS IN OTHER RUBBER DIVISION

Average hours worked per week by wage earners declined from 42.7 hours in 1929 to 38.6 hours in 1933, and to 34.9 hours in 1934. The 1933 hours represented a decrease of 4.1 hours per week per wage earner, or 10.3 per cent reduction.

Table 38 shows the average hours per week for the period of 1926 through June, 1935.

Table 38 - Average Weekly Hours in Other Rubber Division

1926 - 1935

Year	Average Hours Weekly Number	Index (1929 = 100.0)
1926	41.0	96.2
1927	42.6	99.8
1928	43.0	100.7
1929	42.7	100.0
1930	42.2	98.8
1931	37.5	87.8
1932	36.8	86.2
1933	38.6	90.4
1934	34.9	81.7
1935 (June)	35.3	82.7

Source: NRA Statistics Section - Based upon B.L.S. and NICB data.

3. FLUCTUATIONS IN EMPLOYMENT FROM 1926 to 1935.

Employment in the Rubber Industry reached its peak in 1928 when 149,150 employees were engaged. From 149,060 in 1929, the number of employees fell to 106,260 in 1933, a decrease of 42,800 employees, or 28.6 per cent. The low point was reached in 1932 at 90,810 employees. 1933 and 1934 saw gains, the average for the latter year being 120,050 employees. The first six months of 1935 have shown a reaction from this figure and average employment of 110,930.

In the tire division, the trend of employment has followed that of the Industry as a whole, with the exception that the decline in employment to the low point of the depression was more accentuated and recovery from the low point more pronounced. From the high point of 1929, when 83,260 were engaged, employment fell off to 52,960 in 1933, a decrease of 36.4 per cent. The year 1934 saw a recovery to 62,150 employees, but this gain was not maintained during the first half of 1935, employment declining to 58,030 or about 4,000 employees.

In other rubber manufacturing changes in employment have not been so marked as in the tire division. The first four years of

depression, 1929-1933 employment decreased 19.0 percent compared to 36.4 percent for tires. The numerical loss was from 65,800 in 1929 to 53,300 in 1933, or 12,500 employees. Employment increased, however, this increase in employment was not a true employment increase but was to a large extent the consequence of the reduction in weekly hours which decreased from 36.8 hours in 1932 to 34.9 hours in 1934. Moreover, this gain was not maintained in the first half of 1935, employment for that period averaging 52,900 or a recession of 5,000 employees. This decrease in employment was accompanied by an increase in weekly hours.

The differences in fluctuations of employment in the tire and other rubber goods divisions is no doubt accounted for by the greater degree of mechanization in the tire division as compared to a preponderance of manual labor in the manufacture of other rubber goods. It is known that in the two years from 1929 to 1931 labor productivity in terms of pounds of tires per man, increases 35 percent.

Chart 4 shows the fluctuations in employment in the tire and other rubber manufacturing divisions. Tables 43 and 44 show the actual index of employment.

The increase in productivity of labor and technological unemployment is discussed more fully in a later chapter entitled, "Productivity of Labor in Tire Manufacturing."

4. SEASONAL FLUCTUATIONS IN EMPLOYMENT

The unsettled conditions within the Tire Division have not only greatly accentuated the seasonality of employment, but have also resulted in varying seasons of peak employment. For example, in 1929, employment increased in the early months of the year, reaching a peak in May. On the other hand, in 1933, employment did not increase until later in the year, reaching a peak in August. The year 1934, however, was more like 1929, with employment reaching its peak in May.

Table 39 which follows, shows employment for the years 1929, 1933, and 1934, with an index based on the average monthly employment for each year. This Table shows that in 1929 monthly employment varied from 63,110 wage earners in December, to 92,010 wage earners in May, a difference of 28,900 wage earners, or about 47 percent. In 1935, employment varied from 41,960 wage earners in January and April, to 64,110 wage earners in August, a difference of 22,150 wage earners, or slightly more than 50 percent. In 1934, employment was more nearly uniform, with a difference of about 20 percent between peak and low point. The peak was reached in May, with 62,280 employed wage earners, and the low point was reached in November, with 56,790 wage earners, a difference of 5,490 employed wage earners.

RUBBER MANUFACTURING INDUSTRY

EMPLOYMENT IN TIRE AND OTHER RUBBER MANUFACTURING

1926 - 1935

9686

SOURCE: B L S INDEX SHIFTED TO 1929 BASE WITH N. R. A. ADJUSTMENTS TO 1933 CENSUS

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DIVISION OF REVIEW
INDUSTRIES STATISTICS SECTION
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Table 39 - Seasonality of Employment in Tire Division
1929, 1933, 1934

Month	1929		1933		1934	
	Number	Index	Number	Index	Number	Index
Jan.	86,840	104.3	41,960	79.2	59,030	95.0
Feb.	87,840	105.5	42,960	81.1	61,530	99.0
Mar.	89,340	107.3	41,760	78.9	64,450	103.7
Apr.	90,590	108.8	41,960	79.2	67,700	109.1
May	92,010	110.5	46,390	87.4	68,280	109.8
June	91,260	109.6	53,210	100.5	68,190	109.7
July	89,510	107.5	59,950	113.2	63,950	102.9
Aug.	85,680	102.9	64,110	121.0	61,030	98.2
Sept.	81,680	98.1	62,860	118.7	58,130	93.5
Oct.	75,850	91.1	61,530	116.2	57,280	92.2
Nov.	65,440	78.6	59,780	112.9	56,790	91.4
Dec.	63,110	75.8	59,280	111.9	59,370	95.5
Average	83,260	100.0	52,960	100.0	62,150	100.0

Source: Index is published by Bureau of Labor Statistics for "Rubber Tires and Tubes" in Trend of Employment; base shifted, adjusted to 1933 Census totals, and multiplied by Census base by NRA Research and Planning Division.

The seasonality of employment in the other rubber division is shown in Table 40, which shows for the years 1929, 1933, and 1934, the estimated number of employees by months and the monthly index based on average monthly employment. It will be noticed that the seasonality of employment for the three years was not identical. For example, in 1929, employment was greater in the early months of the year and declined in the latter months. In contrast to this, in 1933, employment was greater in the middle months.

In 1929, peak employment was in August with 67,800 employees, and low point of employment was in December with 60,100 employees, a difference of 7,800 employees, or 11.5 percent.

In 1933, peak employment was in October with 66,800 employees, and the low point of employment was in May with 42,600 employees, a difference of 24,200 employees or 36.2 percent.

In 1934, peak employment was in April with 62,200 wage earners, and the low point of employment was in November with 54,600 wage earners, a difference of 7,600 employees or 12.2 percent.

Table 40 - Seasonality of Employment in Other Rubber Division 1929, 1933, 1934.

Month	1929		1933		1934	
	Number	Index	Number	Index	Number	Index
Jan.	67,600	102.7	45,900	86.1	60,200	103.9
Feb.	66,500	101.1	45,500	85.4	60,800	104.9
Mar.	66,600	101.2	43,500	81.6	61,400	106.0
Apr.	66,700	101.4	43,300	81.2	62,200	107.3
May	66,500	101.1	42,600	79.9	59,600	102.9
June	67,000	101.8	45,900	86.1	55,700	96.1
July	67,700	102.9	51,000	95.7	58,000	100.1
Aug.	67,800	103.0	60,200	112.9	56,300	97.2
Sep.	67,400	102.4	65,600	123.1	56,000	96.6
Oct.	65,500	99.5	66,800	125.3	55,300	95.4
Nov.	60,300	91.6	66,000	123.8	54,600	94.3
Dec.	60,100	91.3	63,000	118.2	55,200	95.3
Average	65,800	100.0	53,300	100.0	57,942	100.0

Source: Index as published by Bureau of Labor Statistics with adjustments to 1933 Census by NRA.

5. INCREASING PRODUCTIVITY OF LABOR IN TIRE MANUFACTURING

The United States Department of Labor has made an excellent survey of productivity in the Tire Industry, based on studies in six plants which produced 60 percent of the total output in 1931.*

This survey points out that in these six plants the 1931 production was greater by 21,400,000 tires than the 1921 production. This would have necessitated an increase of 35,500 employees, at the 1921 rate of man-hour output. Actually, there was a net decrease of 7,150 employees, or a total of 42,650 direct labor employees technologically displaced. This condition has been characteristic of the entire Industry.

Table 41 shows that the index of productivity of labor, based on the number of tires produced per man-hour, and, using the year 1926 as 100, increased from 76.34 in 1922 to 149.51 in 1931. In other words, during that decade the number of tires produced per man-hour increased almost 100 percent.

Table 41 shows also that the index of productivity of labor, measured by the pounds produced per man-hour, increased from 68.46 in 1922 to 186.08 in 1931, an increase of 172 percent.

* Bureau of Labor Statistics, Labor Productivity in the Automobile Tire Industry, by Boris Stern. (Bulletin No. 585, July 1933) p. 26.

During this period, the average weight per tire increased from 17.32 pounds in 1922 to 32.55 pounds in 1931. (Boris Stern.) This increase occurred despite the fact that the heavier solid tires were replaced by the lighter pneumatic tires. The explanation for the increase in tire weight is to be found in the replacing of high pressure tires by balloon tires which are larger and heavier, and by the increasing use and production of tires for trucks and busses.

Table 41 - Index of Productivity of Labor, Six Representative Plants, Tire Manufacturing Industry - 1922-1931

1926 = 100

Year	Index Out-put per Man-hour	
	Tires	Pounds
1922	76.34	68.46
1923	85.17	74.50
1924	89.75	77.10
1925	86.80	83.55
1926	100.00	100.00
1927	107.20	114.17
1928	113.96	127.20
1929	117.13	138.32
1930	124.43	158.75
1931	149.51	186.08

Source: Bureau of Labor Statistics, Labor Productivity in the Automobile Tire Industry, by Boris Stern. (Bulletin No. 585, July 1933) P. 7

6. DISPLACEMENT OF LABOR DUE TO TECHNOLOGICAL CHANGES

It is seldom possible to segregate any one factor as "the cause" of the increased productivity of labor in a manufacturing plant. In some cases major changes - such as, for instance, the invention of the Owens bottle blowing machine in the Glass Industry - were revolutionary in scope and were responsible for abrupt and large displacement of workers.

The Tire Industry, however, offers an instance in which the increased productivity of labor was due more to the so-called evolutionary small changes in production than to any large revolutionary change in the process of tire manufacturing. Essentially there has been but one major change in the manufacture of pneumatic tires, and that occurred when the core process of tire building gave place to the flat-drum process. In some plants this occurred as early as 1919. By 1927 practically all of the major plants in the Industry had already adopted the drum process. But the increase in the man-hour did not cease in 1927. On the contrary, since 1927, and especially in 1931, there has been an increase in man-hour productivity larger than during

any preceding year in the history of tire building.

The following changes in tire manufacture are presented in Table 42 as illustrative of the type of technological changes which recently occurred in two plants. In one column is shown the nature of the change and in the other its immediate effect on the labor engaged in the particular branch of the plant where the change took place.

Table 42 - Effect on Labor of Specified Technological changes in Two Tire Manufacturing Plants

Technological change	Effect on Labor
3 Rubber plasticators installed	Saving in direct labor, due to increased man-hour output, of 328 man-hours per day, equivalent to displacement of 41 men.
Compensators installed on 40 tire-building machines, and room rearranged to take care of increased output.	Saving in normal production estimated to exceed 416 man-hours per day, or 52 men displaced.
2 Conveyor units, 1 for the purpose of assembling inner tubes valves and the other for the testing of valves installed.	5 men and 5 girls eliminated, saving 80 man-hours per day.
Curing room rearranged to take care of increased production.	Saving in direct labor, when operating at full capacity, 173 man-hours per day, or 22 men displaced.
Cutting and rerolling departments consolidated and rearranged.	Direct labor savings, 112 man-hour daily, or 14 girls displaced.
20 Modern shoulder-drum machines installed to replace old flat-drum machines for building tires.	Direct labor saving 600 man-hours per day, or 75 men displaced.

Source: "Labor Productivity in Automobile Tire Industry" by Boris Stern. Bulletin No. 585 of Bureau of Labor Statistics, Page 25, July, 1933.

7. SUMMARY OF EMPLOYMENT, PAYROLLS, AND MAN-HOURS IN TIRE INDUSTRY

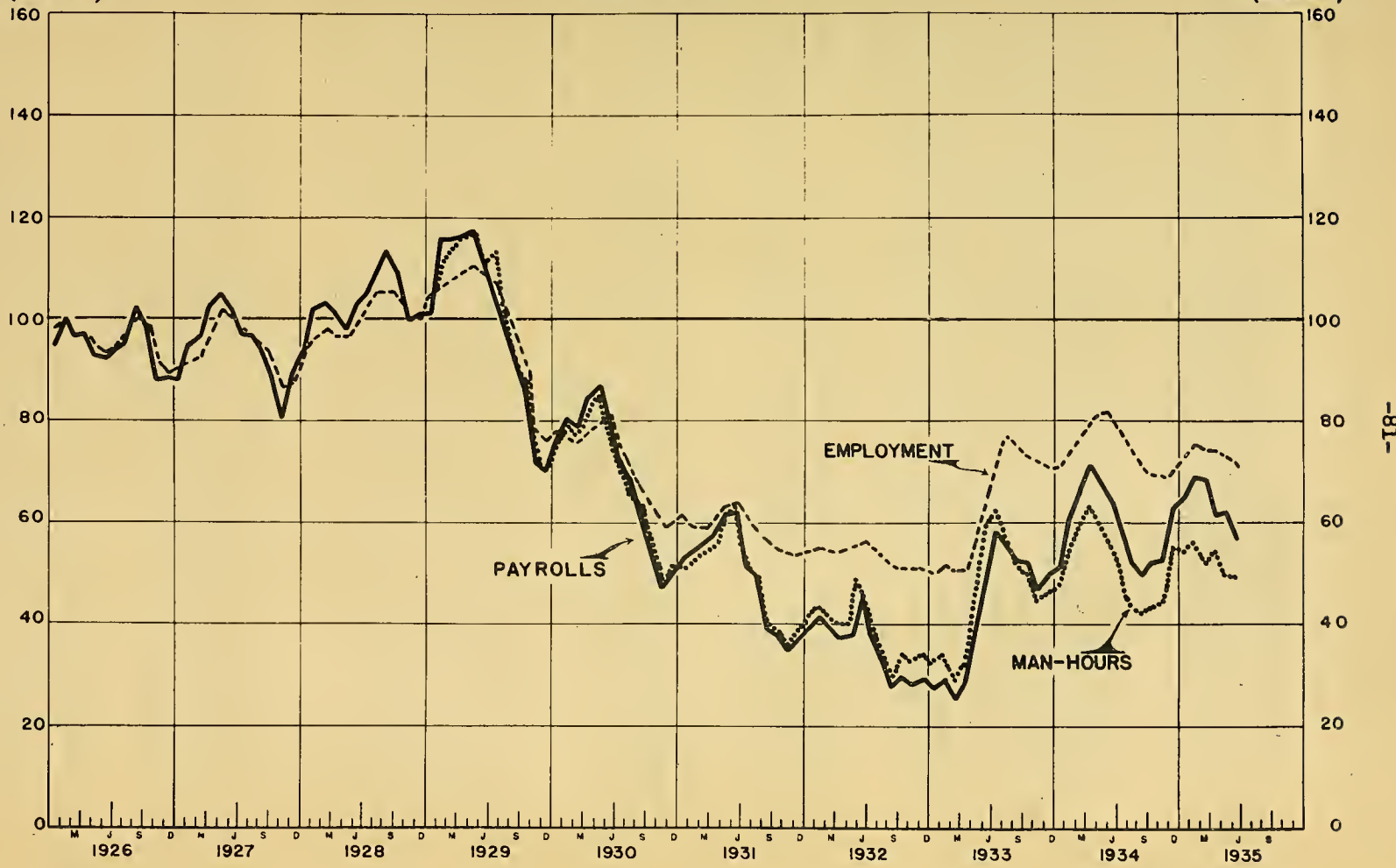
The summary of employment, payrolls, and man-hours in the Tire Industry during the decade 1926-1935 is shown in Tables 44, 45, 46, and Chart 5. The statistics presented in these Tables are based on the B.L.S. Index shifted to 1929 base with N.R.A. adjustment to 1933 census, and the 1929 monthly average is placed at 100.

RUBBER MANUFACTURING INDUSTRY

EMPLOYMENT, PAYROLLS AND MAN-HOURS IN TIRE MANUFACTURING DIVISION

9685

1926 – 1935



SOURCE: BUREAU OF LABOR STATISTICS DATA, ADJUSTED BY N R A

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DIVISION OF REVIEW
STATISTICS SECTION
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The peak in employment, payrolls, and man-hours, was reached in the second quarter of 1929. There was a seasonal decrease in the third quarter, and as a result of the stock market crash in October, 1929, the seasonal upturn of the fourth quarter did not occur, but, in its stead, the Industry was plunged into the depression, and lows were set for employment, wages, and payrolls.

In 1930, in the first quarter, a slight recovery took place, and labor regained part of its losses. Unfortunately the recovery was only for a short duration, and in the second, third, and fourth quarters the recession was accentuated with index of employment down to 59.5, payrolls down to 46.6, and man-hours down to 48.5

In 1931, in the first quarter, the seasonal increase in demand brought the labor indexes up slightly over 60.0. But the second, third, and fourth quarters completely destroyed the gains of the first, and set new lows for man-hours and payrolls, the index of man-hours decreasing to 35.8 in November, and the index of payrolls decreasing to 34.4 in November. The devastating impact of this on labor was somewhat alleviated by the "share-the-work" program voluntarily adopted by the large members of the Industry in 1931. The effect of this may be measured by the difference between the indexes of man-hours and employment.

In November 1931, when the index of man-hours was 35.8, the index of employment was 54.4, a difference of 18.6 points, or over 50 per cent. Prior to the adoption of this policy, the indexes of employment and man-hours were almost identical.

In 1932, there were slight recoveries in man-hours and payrolls during the first and second quarters. However, the third and fourth quarters again established new lows, with man-hours at 31.3 in September and payrolls at 27.6 in September. The index of employment, throughout 1932, remained fairly steady at or about 53.7

In 1933, the first quarter did not show the usual seasonal recovery, but established all-time lows in index of employment, man-hours, and payrolls. Employment was 50.1 in March, man-hours were 29.7 in March, and payrolls were 25.8 in March. In the second and third quarters a spectacular increase took place, sending the index of employment up to 77.0 in August, payrolls up to 57.9 in July, and man-hours up to 62.9 in July. In the fourth quarter, a reaction set in and part of the gains were lost.

In 1934, the Industry went under Code government, and in the first and second quarter, further gains were noted, employment increased to 820 in May, payrolls to 68.28 in May, and man-hours 70.9 in May. The third quarter witnessed a reaction sending the indexes down to the average of the preceding year. The fourth quarter showed good increases, and the year ended better than any year since 1929.

In 1935, there were seasonal increases in the first quarter, sending the indexes up, but not quite as high as the 1934 level, for instance, employment was 75.1 in February, payrolls were 69.0 in February, and man-hours were 55.6 in February. The second quarter saw a slight decline, and the Industry ended Code government in May, with employment at 73.0,

payrolls at 61.8, and man-hours at 49.8

Data are not available as to labor conditions since June, 1935.

Table 43 - Index of Employment in Other Rubber Manufacturing Industry, 1926-1935
(1929 = 100.0)

Month	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Jan.	97.3	94.4	101.7	102.7	90.0	78.4	73.1	69.8	91.5	86.3
Feb.	96.7	95.0	102.1	101.1	89.1	77.5	72.9	69.1	92.4	87.8
Mar.	97.4	95.0	97.9	101.2	88.0	73.1	71.7	66.1	93.3	88.4
Apr.	96.5	96.7	99.2	101.4	88.3	75.1	69.6	65.8	94.5	86.2
May	94.5	98.6	98.0	101.1	85.6	75.8	68.2	64.7	90.6	85.4
June	92.4	98.0	95.0	101.8	84.8	76.7	69.3	69.8	84.6	83.0
July	79.6	93.8	100.2	102.9	82.1	76.4	65.5	77.5	88.1	80.4
Aug.	91.0	93.8	99.1	103.0	82.7	73.6	66.6	91.5	85.6	
Sept.	94.4	98.0	102.6	102.4	80.4	76.9	66.3	99.7	85.1	
Oct.	94.1	98.5	103.6	99.5	81.3	76.6	70.8	101.5	84.0	
Nov.	92.9	97.9	102.7	91.6	80.7	77.5	73.1	100.3	83.0	
Dec.	93.0	101.7	102.3	91.3	81.8	76.1	74.0	95.7	83.9	
Average	93.3	96.8	100.4	100.0	84.6	76.1	70.1	81.0	88.1	

Source: B. L. S. Index shifted to 1929 base and N.R.A. adjustments to 1933 Census total.

Table 44 - Index of Employment in Rubber Tire Manufacturing Industry 1926 - 1935

(1929 = 100.0)

Month	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Jan.	98.1	89.9	92.8	104.3	77.6	61.1	54.6	50.4	70.9	74.1
Feb.	98.9	91.5	96.5	105.5	75.9	59.9	55.2	51.6	73.9	75.1
Mar.	97.5	92.9	97.5	107.3	75.6	59.7	54.8	50.1	77.4	74.5
Apr.	97.2	98.1	96.0	108.8	77.9	60.1	54.9	50.4	81.4	74.3
May	94.1	101.8	96.5	110.5	79.6	62.9	54.9	55.6	82.0	73.0
June	93.3	99.9	98.9	109.6	80.1	63.5	56.1	63.9	81.0	72.3
July	94.7	98.0	103.3	107.5	74.0	61.1	55.7	72.0	76.8	69.7
Aug.	97.1	97.1	105.7	102.9	71.1	59.3	53.5	77.0	73.3	
Sept.	100.3	94.1	106.0	98.1	66.9	56.9	51.2	75.5	69.8	
Oct.	98.5	90.1	104.8	91.1	63.2	55.0	51.2	73.9	68.8	
Nov.	90.6	86.0	100.2	78.6	59.5	54.4	51.2	71.8	68.2	
Dec.	89.3	88.0	100.1	75.8	59.9	54.1	51.0	71.2	71.3	
Average	95.8	93.9	99.9	100.0	71.8	59.0	53.7	63.6	74.6	

Source: B. L. S. Index shifted to 1929 base with N. R. A. adjustments to 1933 Census

Table 45 - Index of Payrolls in Rubber Tire Manufacturing Industry 1926 - 1935

(1929 = 100.0)

Month	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Jan.	94.4	87.5	93.4	101.2	76.4	53.1	39.4	27.8	50.9	65.2
Feb.	99.9	94.6	101.9	115.4	80.3	54.4	41.6	28.9	60.6	69.0
Mar.	96.4	96.4	107.3	115.5	78.7	56.3	38.9	25.8	66.5	68.6
Apr.	96.6	102.6	101.0	116.3	84.5	57.6	37.3	28.7	70.9	61.5
May	92.6	105.2	97.7	117.0	86.9	61.4	37.9	40.3	67.7	61.8
June	91.9	101.8	102.7	111.0	79.9	62.2	45.1	51.2	64.1	56.6
July	93.5	97.1	104.9	104.3	72.3	51.8	38.0	57.9	58.6	
Aug.	94.9	96.9	109.2	99.1	68.6	49.3	33.1	55.4	52.3	
Sept.	102.2	93.5	113.3	91.4	61.8	39.3	27.6	52.5	49.8	
Oct.	98.1	89.1	109.2	87.0	54.6	38.1	29.8	52.0	52.0	
Nov.	87.7	80.8	99.8	71.6	46.6	34.4	28.6	47.0	52.8	
Dec.	88.1	89.0	101.2	70.2	49.9	36.7	29.3	49.6	62.9	
Average	94.7	94.5	103.2	100.0	70.0	49.6	35.6	43.1	59.1	

Source: B. L. S. Index shifted to 1929 base with N. R. A. adjustments to 1933 Census

Table 46 - Index of Man-Hours Worked per Week in Rubber Tire Manufacturing Industry 1926 - 1935

(1929 = 100.0)

Month	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Jan.				102.0	75.4	51.4	41.4	32.2	47.9	54.4
Feb.	95.5	91.7	98.1	111.1	79.2	52.6	43.7	33.4	54.0	55.6
Mar.				113.0	77.9	53.7	41.2	29.7	58.8	52.5
Apr.				115.6	82.1	55.2	40.2	33.2	62.9	54.9
May	91.4	101.4	101.1	115.7	85.0	61.7	40.7	46.7	59.7	49.8
June				109.8	78.4	62.7	48.6	60.0	56.1	49.5
July				113.2	71.9	53.5	40.9	62.9	51.3	
Aug.	96.7	95.3	112.0	98.8	66.2	50.4	35.9	57.7	44.3	
Sept.				90.8	63.3	41.0	31.3	52.2	43.3	
Oct.				87.5	54.8	39.8	34.5	50.7	44.1	
Nov.	91.1	86.2	103.9	71.2	48.5	35.8	33.1	45.0	44.7	
Dec.				71.3	51.3	38.4	33.6	46.4	54.9	
Average	93.7	93.7	103.8	100.0	69.5	49.7	38.8	45.8	51.8	

Source: B. L. S. Statistics: Previous to 1932, N. I. C. B. with N.R.A. adjustments to 1933 Census

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SUMMATION OF SECTION II

The Rubber Industry, therefore, as has been pointed out in this section, at the time of the passage of the National Industrial Recovery Act presented a serious problem to the Administration.

This problem grew out of the critical conditions which had developed in the Industry within the past decade and which threatened the security of workers and owners alike. The principle factors in the problem are summarized in the following paragraphs.

The Industry presented an unusual degree of unprofitability, of mortality of smaller enterprises, and of concentration into fewer and larger establishments. Production had declined greatly, due both to contraction of demand in depression conditions and to increased life of products in service. The Industry was supporting a heavy burden of excess production facilities.

The years 1924 to 1929 had seem much new capital invested in the Industry. This capital had gone into increase of production facilities by the large companies, reflected in the present excess capacity, into new distribution outlets, replacing insolvent independent dealers, and into foreign factories to preserve markets lost to domestic plants because of production costs and tariff barriers. Much of this capital had been dissipated in distribution of unearned dividends.

In sympathy with these conditions, labor has suffered severe displacements due to technological changes, has received decreasing percentages of "value added by manufacture", although average hourly wages have been increased.

CHAPTER III

SPECIAL PROBLEMS IN THE INDUSTRY

A. FOREIGN CONTROL OVER RAW MATERIALS

A unique problem faced by the Rubber Industry is the fact that the production and price of its principal raw materials, crude rubber, is almost entirely under the control of foreign countries. Although America in years past has consumed as much as 74 per cent of the worlds production of crude rubber and today is consuming nearly 50 per cent, we produce, on American owned or leased plantations, but a negligible portion of our own requirements.

The starting of plantations for the production of rubber dates from about 1898, and the first actual production of such rubber was about 8 years later. Previously, the bulk of the world supply was native production from Brazil. The early development of the rubber plantation industry was almost exclusively a British affair. Although the United States, as early as 1910 was consuming at least 50 per cent of the world output, this country showed little interest in crude rubber production.

The reasons for this may be summarized as follows:

1. No suitable land for planting is owned under the American flag.
2. From planting to production is at least a 10 years period, and therefore unattractive to the average American investor in the early years of the plantation industry.
3. Later, when restriction schemes began to harass the American manufacturers with uncertainty as to supplies and costs, the stimulation of native planting and wild production in areas not subject to restriction forecast a later glut of the market and discouraged investment.
4. The available financial resources of most of the individual manufacturing firms in the United States were required for the expansion of their manufacturing and distributing facilities.

1. THE STEVENSON ACT

The first restriction of crude rubber production to affect American manufacturers seriously was under the Stevenson Act, a British regulation which became effective November 1, 1922. The Act took its name from the British Colonial Secretary then in office. As a result of the production slump following the World War, the rubber market was seriously congested and prices below production costs. The overproduced situation in 1922 is evident from the following figures: (*)

(*) Report on Rubber Restriction under the Stevenson Act, by J.W.F. Rowe, London and Cambridge Economic Service.

Years	World Production	World Absorption
1920	370,000 tons	310,000 tons
1921	282,000 "	265,000 "
1922	400,000 "	300,000 "

Stocks on January 1, 1923 were 310,000 tons against estimated "necessary" 8 months supply of 200,000 tons.

At this time the relative importance of crude rubber producing countries was:

	Percentage of World Total
Malaya	57.5 per cent
Ceylon	12.5
South India and Burma	2.0
Netherlands East Indies	25.5
Other Countries	2.5
	100.0

The net intention of the scheme was to raise the price of plantation rubber to 30 cents per pound by as drastic restriction of production as was necessary and then to allow a gradual resumption of full production as long as that price was maintained.

The means for restriction of production was regulation of percentages exportable at the minimum rate of duty (1 cent per pound) during any three months period, such percentages or quotas based upon standard production of mature areas in the year ended October 31, 1920. The quotas exportable were to start at 60 per cent.

The history of rubber restriction, prices and stocks is shown in the following table. The scheme went into effect November 1, 1922, quarters therefore are the three months periods beginning November 1, February 1, May 1 and August 1 of each year. High and low prices are the average high or low price for any one month, actual daily high or low not being available.

Table No.47 - Rubber Quotas, Prices and World Stocks Under the Stevenson Act.

	Quota exportable at minimum duty	New York spot rubber price High	Low	World stocks at end of quarter; number of months' supply.
Last quarter, 1922	60	24¢	28¢	6
First " 1923	60	28	36	7
Second " "	65	30	37	7
Third " "	60	30	28	6
Last " "	60	28	26	6
First " 1924	60	26	20	5
Second " "	60	24	18	4½
Third " "	55	32	24	4
Last " "	50	38	32	3½
First " 1925	55	34	42	3½
Second " "	65	1,08	42	3
Third " "	75	98	84	3
Last " "	85	1,02	70	3½
First " 1926	100	70	50	4
Second " "	100	50	40	4
Third " "	100	42	40	4½
Last " "	80	42	38	4½
First " 1927	70	42	38	5
Second " "	60	42	35	5½
Third " "	60	35	34	5½
Last " "	60	40	36	5½
First " 1928	60	40	19	5
Second " "	60	20	19	5
Third " "	60	20	18	4

Source: Chart prepared by E. G. Holt, Assistant Chief, Leather and Rubber Section, Bureau of Foreign and Domestic Commerce.

When early in 1928, the British Government indicated that restriction would not remain in effect after the expiration of the Stevenson Act, November 1, 1928, rubber prices fell off rapidly to about 18 cents per pound. After the actual expiration of restriction, they continued their decline until the all time low of 2-3/4 cents per pound was reached in June, 1932.

British rubber restriction was bitterly protested by American manufacturers and gave considerable impetus to the acquisition and development of rubber plantations by the larger ones among them. The Secretary of Commerce agitated the matter with the Congress, and the Committee on Interstate and Foreign Commerce was directed to investigate foreign control of shipments of crude rubber and other raw materials, $500,000 being appropriated for the purpose. The Committee's report is characterized as "inconsiderable." The Secretary of Commerce did make the following recommendations as to resistance to foreign monopolies on raw materials:

1. Our bankers can be discouraged from giving American credits to the support of these combinations.

2. We should initiate a strong, systematic campaign for voluntary saving in the use of every one of the commodities when these combinations become extortionate.

3. We should stimulate the manufacture and use of substitutes.

4. We should stimulate production in countries where the commodities in question are not likely to become subject to such combinations.

5. We might set up some sort of properly controlled machinery for emergencies, which would prevent our many hundred buyers from bidding against each other.

Insofar as it was able, the Rubber Manufacturing Industry followed these suggestions. Bulletins and advertisements preaching the preservation and care of tires were issued; the practice of retreading tires was fostered and advanced; more and better reclaimed rubber was made and used; the larger manufacturers sought means of locating and planting their own rubber plantations outside of British possessions; finally, a rubber buying pool was formed, so to regulate and to stabilize the Industry's purchases on the London Exchange as to prevent further restriction.

There is no doubt that the Stevenson Act cost the American public many millions of dollars in the increased cost of rubber and rubber products; its worst effect upon the manufacturing industry was the evil of drastically fluctuating world stocks and prices. At one time the visible supply of rubber in America was less than one month's normal consumption, while prices rose and fell between 18 cents and a dollar and twenty-six cents. The disparity in costs to large users buying well in advance and small users buying from hand to mouth, was most demoralizing; losses taken by the Rubber Pool are estimated at 15 to 20 million dollars. Most of this was taken on the declining market following the announcement that restriction would be discontinued.

2. THE INTERNATIONAL RUBBER REGULATIONS COMMITTEE

The Stevenson Act could be enforced within British possessions only. British controlled plantations elsewhere cooperated voluntarily. The next largest producers, the Netherlands East Indies, did not. Naturally, the restriction and boom in prices gave considerable impetus to further planting outside British possessions, to native and wild rubber production.

Following the termination of restriction, World stocks again increased and prices declined. Under depression conditions, both World stocks and United States stocks increased, the latter at the faster rate, until the price reached 2-3/4 cents per pound in June, 1932. A slight rebound during the fall of 1932 was later wiped out and February and March of 1933 again saw rubber at 3 cents per pound.

Steps to restrict production and export were again discussed. Meanwhile World stocks leveled off and the increase in production of manufacturers in this country brought about a sharp pick-up in consumption and decline in United States stocks during the summer of 1935. Prices again climbed.

As of April 28, 1934, an agreement drawn by the International Rubber Regulations Committee was signed to become effective June 1,1934. This time the regulation applies to all producing countries. The agreement gives the following "Reason for Regulations:"

> "Whereas, it has been considered necessary and advisable that steps should be taken to regulate the production and export of rubber in and from purchasing countries, with the object of reducing existing World stocks to a normal figure, and adjusting in an orderly manner supply to demand and maintaining a fair and equitable price and which will be reasonably remunerative to efficient producers."

The participating countries and the basic quotas for each for the year 1934 are:

Straits Settlements)	
Federal Malay States)	
Unfederated Malay States)	504,000 tons
Labuan and Brunei)	
Netherlands and East India	352,000
Ceylon	77,500
India, including Burma	14,000
French Indo-China	
State of North Norneo	12,000
Sarawak	24,000
Siam	15,000

The quota for French-Indo China was set at 30,000 tons, subject to the actual importation for use by France itself.

In 1921, prior to restriction of production in British possessions under the Stevenson Act, Malaya had been producing 57.5 per cent of the world supply. Netherlands East Indies 25.5 per cent and other countries 17 per cent. The basic quotas, calculated from current production in 1933, assigned to Malaya 48 per cent, Netherlands East Indies 33 per cent, and other countries 19 per cent. The effect of the British restriction scheme, in stimulating planting and production in the countries not subject to its control, is very evident.

Permissible exports were to be percentages of the basic quotas as determined by the Committee from time to time. The agreement was to run from June 1, 1934 to December 1, 1938, and basic quotas are graduated upward slightly each year. The percentages are to be the same for all participants except siam, for whom percentages are determined in advance for the period. The Committee is to designate three

persons representative of the manufacturers in Great Britain, Europe, and America, who shall advise them as to world stocks, the fixing and varying of exportable percentages and other matters.

Thus America, still consuming one-half of the world's rubber, has one representative on a committee of three, which is in turn advisory only to the committee determining the production and price of rubber.

The present scheme, nevertheless, is constructive, flexible and liberal in comparison to the Stevenson Act. So far the committee has approached the task fairly and deliberately, and has evinced no intention of changing the status quo over night. Since America has to live with this foreign control of what has been at times our chief import, we may consider the present situation a fortunate one.

3. LOSSES TO MANUFACTURERS ATTENDANT ON MARKET FLUCTUATIONS

The principal primary rubber market is Singapore. It is shipped principally in slow bottons and the details of purchase, shipping, unloading and delivery, inspection and grading consume much time. Some advance purchasing is necessary for any manufacturer using it in quantity. Large manufacturers' habit is to buy well in advance of requirements. The memory of 1925 when this country had less than one month's supply on hand, still persists. There is little or no hedging on purchases by manufacturers themselves. Thus a period of continually declining prices means continual inventory losses to the American manufacturers. Were declines always compensated by advances, their books would eventually balance, But the period of greatest activity in manufacture of rubber products. when our manufacturers were holding larger stocks than at any other time, saw declines in the price of crude rubber for which previous advances had not provided any reserves, and which may not be offset in many years to come.

From 1926 to 1931, the seven largest manufacturers took inventory losses or write-downs on crude rubber amounting to over 83 million dollars. (*)

(*) See Brief of Rubber Manufacturers Association, Transcript of Hearing, Rubber Tire Manufacturing Industry, October 20, 1933.

It is conservative to estimate that the total losses of the Industry from the same cause in that period well exceeded 100 million dollars. This has been a very considerable factor in the Industry's record of unprofitability. It is one of the chief hazards in the Industry.

4. DISPARITY IN COSTS TO LARGE AND SMALL MANUFACTURERS

The fluctuations in rubber prices and the difference in buying habits of manufacturers serve to bring about a disparity in rubber costs

that is one of the chief factors in the lack of price stability in the Industry.

From 1925 to 1932, rubber prices declined, and the manufacturer having no rubber, buying from hand to mouth, was in the fortunate position. His costs were lower and as a result his lowered selling prices brought down the price of finished rubber products faster than most other commodities.

In 1933, the tide turned. Rubber rose in price from 2.8 cents in February, to 7.8 cents in August. Following a slight recession, prices again mounted, reaching 12.5 cents in April, 1934, and 16 cents in July, 1934.

As of July 31, 1934, confidential figures submitted to the Administration showed 90 per cent of rubber stocks in the country were in the hands of the Big Four Manufacturers. This does not include the position of the pseudo-manufacturers, such as Sears Roebuck, Montgomery Ward, and others who bought their own rubber. One large private brand distributor had stocks which, on the basis of their current sales trend, would last nearly through the year 1935.

On the basis of credit ratings, perhaps one-third of the smaller manufacturers were in a position, financially, to accumulate inventories of crude rubber. Most of them were buying rubber as needed for manufacture, paying spot prices.

Since the price of crude rubber had risen from less than 3 cents to 16 cents per pound in 18 months, the inequality in cost at that time to the manufacturer who had capital and had bought far in advance of his requirements, and the manufacturer who was buying as needed, is obvious. A concrete example of this is presented in the cost data of various manufacturers which was made available to the Administration.

In determining the need for increased floor level prices on tires during the Retail Tire Emergency period, confidential cost figures were submitted to the Administrator by six manufacturers. On equivalent size and type of casing, two large manufacturers were costing the rubber content at $1.08 and $1.11 respectively, while four small manufacturers' costs on rubber content ran from $1.40 to $1.70. (*)

(*) See Report by C. A. Pearce, Research and Planning Division, August 25, 1934, Page 55.

This explains why the Tire Manufacturing Industry, in presenting their accounting manual and cost formula for Administrative approval, were so insistent upon the principle that raw materials should be included at current replacement values. It was their belief that other basis would the cost formula or the principle of cost recovery serve as a stabilizing influence in their industry.

B. CHANGING CHANNELS OF DISTRIBUTION

The variety of types and number of retail distribution outlets for rubber products, particularly tires, has already been discussed. It is to be remembered that 24 million people drive cars and use tires, and that many types of retailers serving their other needs would also seek to sell them tires. Especially so, since during the rapid growth of the Automobile Industry, the retailing of every automotive accessory was touted as a profitable and increasing business.

Originally tire manufacturers themselves retailed, through branch offices or stores. As fast as possible, they developed distribution through independent retail dealers of every type, who had any contact with automobile users. These independent dealers were in turn supplied direct from the factory, through branch houses, warehouses, jobbers and distributors. Retailers included car dealers, garages, tire and vulcanizing shops, automotive supply and accessory stores, hardware and general stores. In comparatively few cases and only in the largest markets were the tire and vulcanizing shops, or tire dealers proper, a dominant factor in the retailing of tires.

As will be seen from the accompanying chart, up to ten years ago, independent dealers, of the above types, controlled over 90 per cent of the renewal tire sales. The only other serious contender, in volume of business done, were the mail order houses. The two largest mail order houses had increased their share of the renewal business from 1.8 per cent in 1922 to 7.2 per cent in 1925. It was at this point that other factors began to cut in, and the independent dealers' share of the business was sharply reduced. This not only made matters difficult for the independent dealer himself, but also for the manufacturer who had depended upon him.

The diversion of renewal tire sales from independent dealers to those other channels is graphically illustrated in the accompanying chart, and in the following table as well.

Table 48- Percentage of Renewal Tire Sales by Distribution Channels

	1922	1925	1927	1929	1931	1933	1934
Independent Dealers	98.1	91.0	88.6	73.4	65.7	62.9	58.2
Spares on new cars			0.1	0.8	1.5	5.0	6.4
Company stores and direct factory sales		0.1	1.7	5.5	9.3	9.1	10.0
Chain and Department stores	0.1	1.7	4.8	13.9	13.6	11.4	12.0
Mail Order houses	1.8	7.2	4.8	5.5	3.5	2.7	3.4
Oil companies				0.9	6.4	8.9	10.0

Source: From figures compiled by Prof. W W. Leigh, of Akron University.

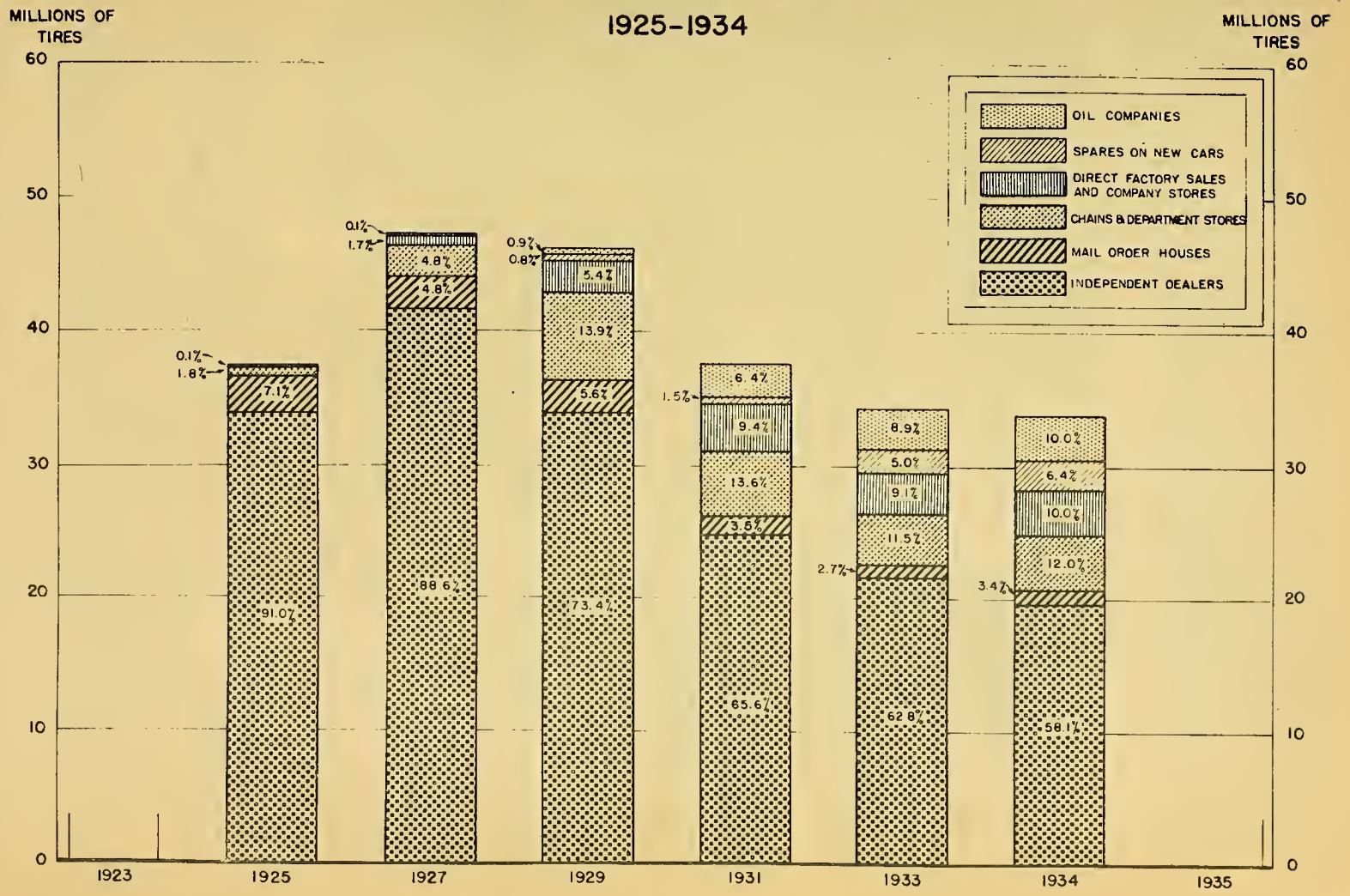
The Mail Order houses' share of the total reached its peak in 1925.

RUBBER MANUFACTURING INDUSTRY

UNIT SALES OF RENEWAL PNEUMATIC TIRES, BY TYPE OF DISTRIBUTOR

(EXCLUDES EXPORTS AND ORIGINAL EQUIPMENT)

1925-1934



SOURCE W. W. LEIGH, UNIVERSITY OF AKRON

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DIVISION OF REVIEW
STATISTICS SECTION
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From then on the business of the two big concerns in this field was rapidly diverted to the retail stores they themselves were opening throughout the country. Meanwhile the gain in sales of private brand tires attracted attention from other chain organizations and many of them became active in the field. They generally had a private brand tire made for them under contract, but sometimes secured exclusive regional control of a lesser known company brand. Among the most important of such concerns were:

Western Auto Supply Company	Kansas City, Mo.
Western Auto Supply Company	Los Angeles, Calif.
Gamble Skogmo Company	Minneapolis, Minn.
The Pep Boys (Manny, Mac and Jack)	Philadelphia, Pa.
Hicks Rubber Company	Waco, Texas
Bohack Stores	Brooklyn, N. Y.
and others	

These concerns priced tires at mail order levels, advertised vigorously and used every promotional device as special sales events, combination and free-goods offers, trade-in of used tires, etc.

Apparently during the four years from 1925 to 1929, the privately owned, single establishment tire dealer was particularly vulnerable to this form of competition. The actual volume of business done by independent dealers continued to increase, in a continually growing market, though their percentage of the total declined. Their profit margins were reduced, however, and their credit standing was being undermined.

This latter fact is established by the entrance of the large manufacturers into the retail field. During 1925 and 1926, some of the larger companies began to do this rapidly. The justification claimed for this move was to provide model retailing as an aid to other dealers or to provide permanent distribution in important centers where a key account was needed as a supply depot for smaller dealers, and where a wholesale branch office would not be self supporting. The real reason was the mortality of independent dealers in competitive centers, and the necessity of replacing volume retail accounts who had gone by the board, financially, as more and more of them did.

During 1929 two things happened. The largest distributor of petroleum products entered the retail tire field with a private brand tire and over 30,000 potential outlets readily available to him. This example was quickly followed by other oil companies, large and small, with company brands of tires. Second, the market for tires ceased to expand and began to contract. The superior quality of tires began to tell, and under the exigencies of depression users were keeping old tires in service and cashing in on thousands of miles of wear they had formerly discarded.

Heretofore mail order and chain store operators had fairly easy sailing against competition from independent dealers, and had generally used from 10 to 15 per cent lower price level, finding that differential ample. Now, however, these operators were in turn up against superior distribution and superior merchandising at about the price level they themselves would like to take. Moreover, there simply wasn't enough business to go around, and they had to have volume sales to maintain their

establishments. Naturally, they fell back upon their chosen weapon, low price. The stage was all set for the years of price cutting and trade wars to follow.

In its brief presenting the Retail Tire Code, The National Tire Dealers Association presented the following figures on the number of independent dealers in the country:

1928	85,000	1931	68,000
1929	80,000	1932	65,000
1930	75,000	1933	59,000

While these figures are obviously estimates yet the National Tire Dealers Association was composed of 160 local and regional dealer associations, and should have been in the best position of any authority to determine the actual extent of the trade, and trend as to number of establishments. We have already seen that the actual sales volume of these dealers declined more than one-half from 1928 to 1933. The problem of survival for them and manufacturers depending upon them was difficult in the extreme.

C. DESTRUCTIVE PRICE CUTTING

It has been said that the Rubber Industry has a slogan, "We must be competitive, at any cost." Price consciousness and lack of marketing stamina are not confined to the tire division of the Industry. The period during which the Industry operated under NRA codes saw price wars develop in several other divisions As examples, the footwear manufacturers, the manufacturers of mats and matting, of automobile fabrics and of druggist sundries all engaged in price cutting to the point where the Administration was asked to intervene. In the sole and heel division a price war developed, so drastic that charges were filed with NRA that manufacturers were selling below actual production costs, let alone cost of production and distribution.

From the facts available, these conflicts did not develop from any marked disparity in costs of materials or of manufacturing. They did not develop because of excessive margins nor were they confined to industry divisions where the number of competitors made information as to competition obscure, or hard to obtain. They developed in divisions where there were comparatively few competitors and where open price filing provided full publicity as to going prices.

In the tire division, as recently as the fall of 1935, a price war developed in the sale of tires to automobile manufacturers for original equipment on new automobiles. In this case there were but four competitors, the Big Four manufacturers being the only ones who seriously solicit the business. The Business is taken on the narrowest of margins, it being reported that the average price during the season 1934-35 returned factory cost plus about 10 per cent to the manufacturer. The business is usually contracted for over periods of six months. Current estimates of new car production for the coming season would indicate an increase in the volume of this business for all concerned, were the status quo to be maintained.

Yet price cutting developed in this situation and was carried

to the extent that the next six month's business is reported to be contracted for at prices fully 10 percent below those in effect for the season just past. Raw material costs had been unusually stable for a year and there had been no reduction in labor costs to warrant the lowered selling price. Apparently price cutting can develop in this Industry without the instigation of mail order houses, small manufacturers or the other disturbing elements usually blamed.

1. FACTIONAL CONFLICTS

There are, in the tire field, distinctly opposed factions, whose interests do not coincide and whose differences of methods and objectives aggrevate their lack of uniformity in pricing policies. The factional conflict which has received the most publicity is that between manufacturers and mail order houses. The increasing importance and influence of mail order houses and their retail store divisions in the distribution of tires has already been noted.

2. MANUFACTURERS VS. MAIL ORDER HOUSES

Tire manufacturers and dealers, even the manufacturers making tires for the mail order houses, have resisted this encroachment upon the independent dealers' market vigorously. One large manufacturer has waged unremitting and loudly vocal warfare upon all private brand distributors, and upon the iniquity of the arrangements between the mail order houses and their suppliers.

The first weapon used was for a time a fairly effective one. Manufacturers, wishing to maintain price levels and prestige on their best known brand, brought out a secondary quality which was supplied dealers at a price which would permit matching mail order prices. Comparable quality was claimed. The private brand distributors promptly advertised their tires as equal in quality to the nationally advertised maker and countered with a secondary line of their own. This process went on until as many as five quality grades were being produced, greatly increasing the dealers' problems of pricing, inventory and stock turnover.

The mail order house originally took a price position 10 to 15 percent below the consumer list prices of the major tire companies. Their methods of merchandising, however, include special seasonal sales, combination and free goods offers which tend to widen this differential. Moreover as independent dealers and small chains approached their price, they kept reducing it to maintain the differential they felt was necessary to move their merchandise in volume. At one point in the Goodyear, Sears Roebuck case before the Federal Trade Commission, testimony was offered that mail order houses had initiated every cut in tire prices since 1926.

As the market for tires began to decline after 1928, the manufacturer mail order or independent dealer mail order struggle increased. Price cutting and price cutting devices which seem almost fantastic were employed. One thing, which may be credited to the account of the mail order people, is that they have never participated to any extent in the commercial account wars. Those seem to be machinations of tire manufacturers them-

selves, those cases where 10,12, or 14 "tens" off retail lists were quoted.

It is further believed that, however hard the bargain driven with their source of supply on purchasing price, the mail order houses have always sold at a profit above their cost. Information informally given the Administration during the emergency period was to the effect that floor level prices represented a high mark up in their retail stores. In the hearing of June 4, 1934, one mail order house reported a profit of thousands of dollars on adjustment sales.

3. LARGE VERSUS SMALL MANUFACTURERS

The diversity of interest between the four large tire manufacturers and the small manufacturers is sharply defined and a point of continual conflict. The small manufacturer does not advertise nationally, he does not maintain branch houses, he rarely participates in tonnage business such as private brand contracts, new car equipment, direct sales to national accounts, the Federal Government, and the like.

The field of the small manufacturer was principally the large independent dealer or distributor who could afford to buy direct from the factory, dispensing with branch or warehouse service. Such accounts frequently do a distributing business to smaller dealers; they insist upon protected territories which the small manufacturer is glad to give them, and the cost of handling their business is slight compared to the cost of covering small accounts. The small manufacturer passed along these economies in the form of discounts and the dealer sold their product either at the level of nationally known lines by the weight of his local prestige and advertising, or passed along a part of his discount as a price "edge" below the price of the Big Four.

This field of the small manufacturer has been invaded by his large competitors with their "bonus for volume" discount plan for large accounts, and by three of them with subsidiary" company brands sold on the same sales plan as small manufacturers were accustomed to use. In fact, in the information collected by the Administration on dealer buying prices, two of the lowest unit prices quoted to any class of account on private or on company brands were on these "subsidiary" lines.

The large manufacturer has also supplemented his distribution scheme, in three cases, with chains of company owned retail establishments, in direct competition with other retailers in important markets. This his small competitor cannot do. The large manufacturer, furthermore, has contracted with marketers of petroleum products to distribute his company brands through their system of dealers and agencies, allowing them maximum dealer prices. While this field is open to all, the oil company handling tires as a supplementary activity will usually buy the best known and most readily accepted product, price being about equal.

The small manufacturer thus is exposed to increasing competition in a declining market. He may hold his present accounts by added concessions, but will surely see their volume decline in the face of ever-increasing chain store, company store, and oil company distribution. He may secure

new accounts by relaxing his requirements as to terms of payment or degree of credit responsibility. Either is costly. In two or three cases, either by outstanding quality of product and smart merchandising or by unusual ability to economize, he seems to be riding out the storm.

4. GUARANTEES, TRADE-INS AND OTHER PRICE CUTTING DEVICES

The Industry and Trade have shown remarkable facility in turning any marketing or promotional device into a price cutting instrument. Many years ago it was the custom of the Industry to adjust defective tires on the basis of a certain expected mileage. This was originally 3500 miles.

From this modest beginning came the practice of guaranteeing a certain mileage as a sales inducement, and in the case of tire failure, adjusting on the basis of the guarantee. Competition together with improved tire quality ran up mileage guaranteed from 3500 miles to 20,000 miles before this form of guarantee was discarded. In isolated instances, certain distributors advertised guaranteed mileage of 35,000 to 40,000 miles on tires, quoting the low cost per mile as inducement to purchase.

When the time guarantee became prevalent in the Industry, the same thing occurred. The first time guarantee was for a period of one year, but some competitors quickly stepped this up to 18 and even 24 months. One private brand distributor, using a 24 month guarantee, features the following argument in current advertising. The selling price of their tire, divided by 24, is shown as the cost per month, in contrast with the consumer list price of standard lines, divided in turn by 12, the number of months for which such tires are guaranteed. The statement is made that the private brand tire will cost less than one-half as much as the standard brand, per month in service.

Trade-in allowance originated with the practice of some manufacturers and distributors to change over tire equipment on new cars when purchased, to gain prestige and distribution for their product. During 1928 most manufacturers brought out a "deluxe" type of tire, super-constructed and super-priced. To place these tires in use reapidly the trade-in device was used and liveral allowances made on partially worn tires.

The tendency of the trade to convert any such arrangement to the uses of price cutting is evidenced in that the trade-in soon became a factor in every sale, and utterly worthless tires were bought in on new tire purchases as a price cutting device, pure and simple.

Trade-ins were solicited in advertising. Allowances of from 50 cents to 5 dollars per tire and up to 25 or 35 percent of the new tire price were quoted. One large mail order house, in their 1933-34 Fall and Winter catalog, offered a trade-in allowance on new tires sold, if the customer would cut out a small piece of the old tire sidewall and mail it to them.

The free goods device started with offering any automotive accessory of lesser value as a premium on the purchase of a tire at the

full list price. The premium might be anything from a tube repair kit to a gallon of oil, a free tube or even another tire. The most usual offer was a free tube; the most liberal offer was a two-for-one sale in which two tires were offered at the consumers' list price of one.

The persistence of such tactics is shown by a current example within the local trade. Washington papers of Tuesday, November 5, 1935, carried a New York dispatch that tire manufacturers had agreed to a truce in the price war prevailing since the first of this year, and that dealers and distributors had been "instructed" as of November 1st to discontinue all cut price advertising. On Thursday, November 7th, a Washington paper carried an advertisement by a distributor of well known tires. Current consumer list prices, as published by the manufacturers, were quoted. Also a hot water heater, priced at $15.95, was offered free with the purchase of four tires, and a storage battery, priced at $7.95, with the purchase of 2 tires. The advertisement also proclaimed "Big old tire allowance", and contained the unexplained statement "Save 26 percent". Continued adherence to the manufacturers' agreement in the face of such competition is doubtful.

5. UNFAIR USE OF SUPERIOR CAPITAL RESOURCES

With the disparity in material costs, due to rapid and wide fluctuations in market prices and the differing habits as to advance buying, every cycle of rising material costs brings the charge that the producers who are well covered on ray materials at low prices, are retarding any increase in finished goods prices for the purpose of freezing out their less fortunate competitors.

This has been continually one of the points at issue between the large, well financed manufacturers and the smaller manufacturers with little or no capital available for commodity speculation. It was the cause of the firm stand taken by the Industry for the mandatory use of replacement values in their cost formula presented to the Administration for approval. It was the cause of their flat refusal to accept a cost recovery plan without that provision.

The situation was stated as follows, in a letter from E. S. Burke, President, Kelly-Springfield Tire Company, to Leon Henderson, August 23, 1934:

> "If any manufacturer in this Industry or any other wishes to hold large sums of working capital for speculation, we have no objection to his doing so. We are definitely of the opinion, however, that tire consumers should not be obliged to bear the losses such manufacturers may incur in such speculative operations, and we do not believe that makers engaged strictly in the manufacturing business should be subjected to price wars where speculators throw away their speculative commodity gains in attempts to crush competitors who are engaged only in the manufacturing and selling end of the business.

"That is the fundamental vicious practice that is winning the present price war for the large manufacturers. If it is allowed to continue much longer, this victory will be complete."

In a little less than a year from the time this protest was written, Mr. Burke's company had gone into bankruptcy and had been acquired by the Goodyear Tire and Rubber Company.

D. THE PROBLEM OF CONTINUAL CHANGES IN TIRE SIZES AND TYPES

As the Tire Industry is in reality secondary to the Automobile Industry, the automobile manufacturers practically dictate to tire manufacturers as to the size or types of product they must produce. Rapid change in automobile design and construction continually requires new tire sizes to be brought into production. Cars of early vintages still in operation require certain tire sizes long after the volume of production of those items is profitable to the tire manufacturer.

A tabulation of 1934 production by size and type of tire shows the second, third and fifth most important sizes, in numbers produced, sizes last used as original equipment on new cars in the years 1931, 1929 and 1927 respectively. Such longevity in popularity is unusual. Ford, Chevrolet and Plymouth have themselves used five different sizes of tires as original equipment since 1931.

The layman, observing passenger car traffic on street or highway, might think that a range of some half dozen tire sizes would be adequate from the standpoint of weight, power and speed characteristics of automobiles in use. Yet we find in a current retail price list of one manufacturer 90 sizes and types of passenger car tires without considering price lines and this number increased to 204 when different price lines are taken into account.

The burden of amortization and obsolescence of costly equipment which is placed upon manufacturers by this change and diversity in size and type is heavy. One size may figure prominently as equipment on a popular model which for one reason or another may never absorb the cost of equipment set up for production. Equally costly is the maintenance of equipment for production of negligible quantities of tires popular 10 or 15 years ago and still in demand here and there.

The problem confronting retailers, in maintaining adequately diversified stocks and yet securing a profitable rate of turnover, is difficult. The maintenance of warehouse or branch house stocks of items rarely called for and not usually stocked by retailers adds materially to costs of distribution.

These difficulties undoubtedly have been a considerable factor in the unprofitability and mortality of smaller enterprises, small manufacturers and small dealers as well.

Each in its own way, the conditions enumerated in this section as special problems of the Rubber Industry contribute to reduce profit and to increase the hazards of the Industry.

Foreign domination of crude rubber supply increases and reduces the price of that commodity irrespective of American consumption. Periods of increasing prices provide some establishments with speculative profits, but the disparity in costs due to fluctuations in price makes for unsettled prices of finished goods in the market place which is costly to all establishments.

Changing channels of distribution and the struggle among outlets to maintain their sales volume in a declining market have produced cut-price wars which have actually resulted in extermination of many distributors, together with the manufacturers supplying them.

In the tire division diversification of product among sizes and types dictated by the Automobile Industry and among price-quality lines established for competitive purposes seriously affects costs of production and distribution. This also means an additional heavy burden of amortization and obsolesence of equipment added to cost of manufacture.

These factors converged to produce the state of disorderly and futile price competition, the factional conflicts and prolonged, costly price wars which confronted N. R. A.

How the situation was dealt with appears in the next Section of this report, Industry under the Codes.

CHAPTER IV

INDUSTRY UNDER THE CODES

This section is intended to set forth the operation and effect upon the Industry of Codes of Fair Competition for-

The Rubber Manufacturing Industry,
The Rubber Tire Manufacturing Industry,
The Retail Rubber Tire and Battery Trade.

The discussion applies to the operation and effect of labor provisions, price control provisions, and other trade practice provisions. Since labor conditions in the Industry have been discussed in Section II, both prior to, during and since the period of Code operation, that part of this discussion is brief and confined to an outline of the wage and hour minima and maxima provided, and the effect upon employment and earnings directly traceable to these regulations.

Emphasis is placed upon efforts to stabilize prices and reduce losses from disorderly competition, this being the principal issue on which the Industry sought improvement at the hands of the National Recovery Administration.

A. CODE FORMULATION

1. PROPOSED CODE

The following Trade Associations affiliated with the Rubber Industry filed Codes with the National Recovery Administration, Rubber Section, during the formulative stages of Code making for the Industry:

Rubber Manufacturers Association, Inc.,
444 Madison Avenue, New York City

National Tire Dealers Association,
100 LaSalle Street, Chicago, Illinois

Rubber Heel and Sole Manufacturing Association,
551 Fifth Avenue, New York City.

National Rainwear Manufacturers Association,
56 Amherst Street, Cambridge, Mass.

Rubberized Rainwear Manufacturers Association,
110 East Lexington Street, Baltimore, Md.

Sheet Rubber Sundries Manufacturers Association,
515 Fifth Avenue, New York City.

Rubber Reclaimers Association, Incorporated,
500 Fifth Avenue, New York City.

Gas Tubing Manufacturers Association,
216 North Clinton Street, Chicago, Illinois

Several other Trade Associations which represented manufacturers of rubber products in part, while affiliated with the Rubber Industry, chose to be classified with other industries and consequently filed their Codes, accordingly.

Sponsorship of Manufacturing Codes

The Rubber Manufacturers Association, Incorporated, 444 Madison Avenue, New York City, presented and sponsored the manufacturing codes for the Rubber Industry, namely, the Rubber Manufacturing Industry, Code #156, and the Rubber Tire Manufacturing Industry - Code #174.

This Association was founded in 1900 as the New England Rubber Club. In 1909 it was incorporated under the Massachusetts laws as the Rubber Club of America. In 1915 it was reincorporated under the Connecticut laws. In 1917, the name was changed to the Rubber Association of America, Incorporated. In 1929, the name was again changed to its present form, of Rubber Manufacturers Association, Incorporated.

In presenting the above mentioned Codes, the Association claimed representation in the Rubber Manufacturing Industry (except Tires and Tire Sundries), of over fifty (50) per cent in number of establishments, and over eighty-five (85) per cent in volume of business. With reference to the Rubber Tire Manufacturing Industry, it claimed sixty (60) per cent in number, and eighty-six (86) per cent in volume of business.

The record discloses no material objections to the sponsorship of the Rubber Manufacturers Association, Incorporated, or that it was not truly representative and well qualified to act for the Industry.

The National Rainwear Manufacturers Association affiliated themselves with the Rubber Manufacturers Association for the purpose of Code sponsorship for the Rainwear Industry .

Sponsorship of Distributing Code.

The National Tire Dealers Association, Incorporated, 100 La-Salle Street, Chicago, Illinois, presented and sponsored the Retail Rubber Tire and Battery Trade Code #410.

This is a corporation organized and existing under the laws of the State of New York, and was incorporated in 1923. It was claimed to be national in scope, and to serve the retail portion of the Tire and Battery Industry in the same capacity as that of the Rubber Manufacturers Association, and the National Battery Manufacturers

Association, with respect to the manufacturing portion of the Tire Industry and Battery Industry, respectively.

In the matter of true representation, this Association might justly have been questioned, as later developments proved that their claims were to say the least, optimistic as to their ability to represent and speak for the Trade. However, at the time the Code was being formulated, the following statement was presented to the Administration:

> "The Association has at the present time one hundred and sixty (160) Local Tire and Battery Dealer Associations, in the principal cities of the United States, whose functions and duties are to serve the retail portion of this Industry in those trade areas, and it is also our intention, after the approval of the above mentioned Code, to place in the field permanently stationed at advantageous points throughout the United States, both from a geographical and population standpoint, Zone Managers working directly for this Association, whose duties it will be to carry out enforcement of this Code, when approved, and to form and maintain additional local associations."

At the time it was further stated that the Association represented 70 per cent of the independent tire dealers of America.

2. FINAL DETERMINATION OF BASIS OF CODIFICATION

When the preparation of the Manufacturing Codes was first considered, the Industry divided itself into two major groups, one group dealing with the manufacture of Tires and Tire Sundries, and the other group with the manufacture of all other rubber products.

(a) Rubber Tire Manufacturing Industry

The Tire Manufacturers at first attempted to include in their Code both the manufacturing and distributing functions, but when the Administration ruled that the manufacturing function required one Code and the distributing function another separate Code group started formulation of the Code for the Rubber Tire Manufacturing Industry.

(b) Rubber Manufacturing Industry (other than tires).

The other group, that is other than Tires and Tire Sundries Manufacturers, as the first step in the preparation of their Code divided themselves into various commodity groups.

The groups were more or less a natural classification according to types of commodities made and sold, and some of them in themselves were very complex in their make-up.

The number of items produced in the Industry runs literally into tens of thousands, a large percentage of which are small articles.

These are distributed through practically every known type of distributing organization to reach the ultimate consumer.

After considerable effort to reduce to a minimum the number of commodity classifications, there resulted nine such groups.

These were:

Automobile Fabrics, Proofing and Backing Division
Rubber Flooring Division
Rubber Footwear Division
Hard Rubber Division
Heel and Sole Division
Mechanical Rubber Goods Division
Rubber Sundries Division
Rainwear Division

Each of the above groups, after this classification, went to work to draw up its Code of Fair Competition, and ultimately nine different Codes were formulated.

It then became evident that manufacturing conditions in the Industry, and the essential purpose of the National Recovery Administration in administering the Act, made it imperative that the Industry work out a single Code, if possible.

After long discussion, an agreement was reached on a Basic Code which became Chapter I of the Rubber Manufacturing Industry Code. This Chapter established the relationship between the Code Authority, the several Divisional Code Authorities, and the Rubber Manufacturers' Association, Incorporated, for the administration of the Code. It also included all mandatory provisions of the Act, together with the labor provisions applicable to the entire Industry, except the Rainwear Division, and the general fair trade practices applicable to all Divisions.

Because of the difference in marketing methods, each of the groups represented in the Industry, found it necessary to present its own provisions as to marketing standards, selling schedules, and trade practices. These were included in the final draft of the Code as Chapters II. to X.

(c) Retail Rubber Tire and Battery Trade

When the preparation of the Distributing Code was first considered, the representatives of the Battery Manufacturing Industry stated that they desired their retail operations covered by a Code, and requested that they be included under the Code being formulated for the Retail Rubber Tire Trade. After careful consideration by the Administration and with the approval of the National Tire Dealers Association, the sponsors of the Retail Tire Code, it was decided that the interests of the two trades were similar and that they might present a joint Code.

In order that all types of establishments selling tires should be represented in the formulation of the Retail Tire and Battery Trade Code, the Administration called in representatives of the

Petroleum Industry, large mail order houses, factory-owned stores, and chain store supply houses.

With this representation working cooperatively, the Code for the Retail Rubber Tire and Battery Trade was formulated.

3. INDUSTRY PROPOSALS - PRICE STABILIZATION

General Statement

After years of unprofitable operations, due to the pressure of competition in a declining market, many members of the Rubber Industry believed that the provisions of the National Industrial Recovery Act offered opportunities to place restraint upon competition to an extent which had not before been possible. This is evident from the proposals to control prices, limit production or otherwise restrict competition with which practically every division of the Industry besieged the Administration. Many of these proposals were directly contrary to the expressed purposes of the Act.

Rubber Tire Manufacturing Industry - Proposals

The Rubber Industry is so constituted that it is difficult to draw a sharp line of demarkation between its manufacturing and distributing interests. Therefore, it was only natural that the Industry in its early stages of Code formulation worked along the line of a vertical Code which would take cognizance of every step in the economic process from manufacturing to use. This approach to the problem was due to the history of prices which had proven unprofitable to the Industry for some years prior to the enactment of the National Industrial Recovery Act. However, when the matter of a vertical Code for the Rubber Tire Industry and Trade was presented to the Administration, embodying both manufacturing and distributing activities, the Administration ruled that these two functions called for separate Codes, one for the manufacturing activities, and one for the distributing activities.

There were two reasons for the separation, first, that a vertical code was against the administrative policy in effect at that time, and second, that the Distribution Trade of the Rubber Tire Industry did not want to be dominated by the manufacturers but desired a code of their own.

Having been overruled on a vertical Code, the Code Committee approached the problem of price stabilization in part from the angle of resale maintenance, and included such provisions in the Code submitted on October 2nd, 1933 to the Administration, which later, on October 20th, was submitted at the Public Hearing.

The essential features of these provisions were:

1. In view of the fact that about 60 per cent of the total volume of sales of products of the Industry to retailers consisted of sales direct by members of the Industry, the restriction of such members as to trade practices would be unavailing unless

supplemented by provisions designed to present direct evasion thereof, by sales through jobbers and wholesalers. Accordingly, it was provided that no member should sell any product of his manufacture through any jobber or wholesaler who did not comply with the trade practices set forth in the Code, in the resale of such products.

2. Provision was made for the publicity of filed prices and any changes therein.

3. Provision was made that each member of the Industry should offer his jobber or dealer a contract in such form and subject to such terms and conditions as might be prescribed by the President or the Administrator. The jobbers and dealers were to agree, among other things, not to sell the products to any consumer at less than the filed prices in effect at the time.

At the post hearing conference held in Washington, D. C. from October 21st to 28th, 1933, in line with the discussion at the hearing on the Code, the above mentioned provisions were eliminated. However, the Deputy proposed the inclusion of the following in a revised draft of the Code:

Article XIII

"A. Further recommendations by the Code Authority.

Section 6. The Code Authority may, in cooperation with the Code Authority to be set up for the Retail Rubber Tire and Battery Trade, submit recommendations to the Administration for the development of a vertical Code for the Industry and Trade, at a later date."

The omission of the resale maintenance provisions from the Tire Manufacturing Industry Code brought a protest from some twenty tire manufacturers who, under date of November 14th, addressed the Administration on this subject as follows:

"It is the firm belief of the signatories to this memorandum that the price relationship established for the sale of tires by manufacturers to the several classes of trade enumerated in the Tire Manufacturers Code, shall be maintained by the distributors, jobbers, and dealers in resale to all classes of consumers through the medium of a vertical code, so called."

The Administration maintained the position previously taken and ruled against a vertical Code at a meeting of the Industry held in Washington, D. C. on November 28th and 29th, 1933.

(b) Allocation of Production

The Industry's proposed program for allocation of production involved production by each member only up to a certain quota assigned him. This would be based upon the percentage of the Industry's total business on that particular product done by him in a definite previous period of time. Initial quotas, under this plan were to be based upon

the business done in the 20 months prior to October, 1933. Penalities were to be exacted from any member exceeding the quota assigned to him.

In the early formulative stages of Code making this subject received considerable attention as a means of stabilization. This may be substantiated by referring to Mr. Harvey Firestone's letter of November 27th, 1933, addressed to the Administration, in which he made the following statement:

> ". . . .in our early meetings in June they proposed and had a Code drafted providing for allocation, and in these meetings in New York, which covered a period of three weeks, when any other proposal was brought up, it was ignored and it was not until July 12, 1933, that a committee was appointed to present a plan to take the place of allocation. (For your information I enclose copy of letter I addressed to Honorable Newton D. Baker on July 21st, on this subject.) Since that time we have been unable to accomplish anything, and the Industry is becoming firmly divided between two groups - one group for the protection of the special brand distributors, and the other group for the protection of the independent dealers."

The letter of July 21st, 1933 referred to by Mr. Firestone was addressed by him to Newton D. Baker, who had been retained as counsel for the Industry. The arguments against allocation in this letter were:

1. Allocation would reduce employment in the sales, distributing, and servicing of tires by removing competition to increase sales.

2. Allocation would destroy initiative, and an incentive to good management and service.

3. Allocation would cheapen products.

4. Allocation would stop product development.

5. Allocation would be impractical in the Industry because no standard period of volume could be determined, various classes of trade are served, relation of grades and size of tires would interfere.

6. Tire Industry problems too unique to permit allocation.

7. Original equipment business would be an insurmountable obstacle.

8. Allocation would not stabilize prices or competition unless applied to special brand distributors and dealers, which is impossible.

Mr. F. A. Seiberling, President of the Seiberling Rubber Company, expressed himself on this subject on November 9, 1933, in a

letter to the Administration as follows:

"The Industry is being wrecked by greed for volume. It can only be saved by price control, or production control. The Government, I understand is opposed to price control, therefore the most practical solution is control through allocation of production.

"A majority of the Industry in both number and volume are on record as favoring this plan; the percentage of each company to be determined by the production during the twenty months period preceding last October; penalties for exceeding percentages above amount allotted to be graduated progressively upward after the amount allotted has been produced, - thereby automatically checking incentive to battle for volume which is wrecking the Industry;

"If the Government will write a Code simply in form covering:

"1. Provisions for the protection of labor.
2. Provisions eliminating 'bad trade practices.'
3. Provisions controlling production through allocation;

it will save the situation and be more acceptable to the Industry than any plan that can be formulated. Each company themselves, will be free to name its own price and discounts; this will satisfy the public-the provisions should be made preventing any company from selling products below manufacturers' cost-formula as to cost to be determined later."

The Code Committee in a conference on August 17th, 1933, with the Deputy Administrator, expressed the opinion that only two measures could effect the necessary recovery in the Tire Industry - either stability of price structure, or allocation of production. With reference to allocation, there were arguments presented for and against as well as a tentative proposal for allocation. The conference, due to the wide divergence of opinion, resulted in a formal request being made by the Committee that the Tire Code as submitted be held in abeyance until a new Code could be submitted.

A tacit understanding was reached, that the Tire Industry would submit a revised Code, which would be independent of the proposed Master Code for the rest of the Rubber Industry. Allocation of output and formulation of a Tire Industry Committee with N.R.A. representation were to be given further study.

The unyielding attitude of the spokesmen for and against allocation of production, finally resulted in omission of provisions relating to this subject in the Code submitted for approval to the Administration on October 2nd, 1933.

(c) Cost Recovery

Cost Recovery was considered by the Industry as one of the factors absolutely essential to bring about stability of its price

structure, and therefore the original Code presented to the Administration on July 31st, 1933, included the following provision:

> "Article IV - No company shall initiate a selling price for a product of the Industry which will not return to the company initiating such price at least its own individual methods of cost determination advocated in the Accounting Manual of the Association and revisions thereof from time to time by the Committee, or by such other method as the Committee shall determine to be applicable to special situations not covered by said Manual or said provisions."

As the Code submitted on July 31st 1933, after further consideration, did not in the opinion of the Code Committee adequately cover the needs of the Industry formal request was made that any action on it should be held in abeyance by the Administration, pending the submission of a new Code.

On October 2nd, 1933, a new Code was submitted which became the subject of a Public Hearing on October 20, 1933, and subsequently was revised again in line with the discussion at the Hearing and resubmitted in final form on November 2nd, 1933.

The cost recovery provisions in these two drafts of the Code were substantially the same, and took the form of a cost and market stabilization plan. The essential features were:

> That the Code Authority should immediately upon approval of the Code proceed with a study of a market stabilization plan, based on cost control qualified by the following:
>
> (a) A standard uniform system of accounting, for the guidance of each member of the Industry, should be developed.
>
> (b) The Code Authority should designate, with the approval of the Administrator, a disinterested and impartial agency to procure and compile the data required for the study.
>
> (c) The Code Authority should confer with the Administrator in the course of formulating its recommendations, and make an initial report within 30 days of the approval of the Code, and a final report within 90 days.

Upon completion of the cost control plan, the Code Authority was to make recommendations to the Administrator as to the elimination of all grades of tires and tubes other than the so-called first and second lines.

On November 6th, 1933, some twenty members of the Industry in a memorandum addressed to the Administration took exception to the proposed Code of November 2nd, 1933. Subsequently on November 14th in another memorandum, they outlined specific regulations this group wished to have included in the Code, and reiterated these on November 24th.

With reference to Cost Recovery, the following statement was made:

"It is the further belief of the signatories to this memorandum, that the provisions of Article V of the Code now on file with the Administration, should if necessary, be modified or broadened so as to require the immediate establishment of the lowest representative manufacturing cost which shall be coupled with the average cost of distribution, and specific provision shall be made in the Code that no manufacturers shall sell below cost so determined."

In the Code as finally approved by the President, the draft of the Cost Recovery provision as submitted on November 2nd, 1933, remained with only one material change, that being that the final recommendation on the market stabilization plan should be submitted in sixty days from approval of the Code, instead of ninety days.

(d) Establishment of Price Differentials.

In the Code submitted by the Industry dated October 2nd, 1933, there was included a rather comprehensive plan for Differential Control. This plan provided that pending the establishment of a market stabilization plan based on cost control, that the selling price should be maintained at the then existing levels, or at such higher levels as might be necessitated by increased costs.

The essential features of the plan were:

1. The Differential Control plan in any case was not to be in effect longer than 90 days after the approval of the Code.

2. The Code Authority was to classify all members of the Industry into four groups according to total sales for 1932 on a sliding scale.

3. That during the life of the plan, no new dealer business was to be solicited except on the basis of an established set of preferential discounts up to 15 per cent, based on the above mentioned volume grouping.

4. That during the life of the plan, no national or commercial account business should be taken, except on the established preferential discounts up to 10 per cent, according to the volume grouping mentioned above.

5. An impartial agency was to be selected with whom all existing contracts were to be filed below maximum discount levels established in the plan. These contracts were to be liquidated at the first opportunity.

6. There were certain limitations placed on jobber, city, county, and state business as to discounts to be allowed.

As a result of the Public Hearing on October 20th, 1933, the proposed Code was revised, and the plan for the establishment of Price

Differentials was deleted.

The principal objection to such a program came from the large, nationally advertising companies. They maintained that they had developed a large volume of sales by continually giving the consumer better value. The proposed plan, as they claimed, would require them to charge the consumer more for their product, merely because of the previous large volume of sales they had built up in that way. They claimed this was unjust and economically unsound.

(e) Open Price Filing System

At a meeting of the Industry in Washington, D. C., on November 28th and 29th, 1933, called for the purpose of further consideration of the Code of November 2nd, 1933, to which some twenty tire manufacturers had taken exception, a proposal for the establishment of an open price system was made to the Industry by the Administration. This proposal developed considerable opposition and a further meeting on this subject was held on December 19th, 1933. In the interim on December 14th, 1933, twenty-one tire companies addressed the Administration as follows:

> "Because of the paramount importance to each and every member of the Industry, we recommend as a new section (Section 7) of Article XI (further recommendations by the Code Authority), the following:
>
> "' Section 7. On or before thirty days after the approval of this Code, the Code Authority, with the approval of the Industry, shall make recommendations to the Administrator as to a fair method of filing with the Association and for the Administrator, discounts, terms, and conditions of sale to all classes of the Industry, as then existing in the Industry.'".

At the Industry meeting on December 19th, 1933, a new proposal was made by the Administration which, after approval by the Industry was incorporated in the Code, Article XI, Section 7. This provided that the Code Authority, within 90 days, should make recommendations to the Administration for the establishment of a complete open price filing system for the Industry. In the interim each member should file with the Administrator all his prices, discounts, terms and conditions of sale to all classes of customers, such prices not to be revised downward except after 10 days notice to the Administrator.

In this way the Administration hoped to provide temporary stability of prices and further to secure information as to conditions in the Industry for further study of its pricing problems.

On December 22nd, 1933, the Deputy advised the members of the Industry as follows on this subject:

> "At the meeting in Washington December 19th, a new Section 7 of Article XI was adopted for incorporation in the Code.
>
> "This Section provides that the Code Authority shall make a

study of the desirability of the adoption by the Industry of a complete open price system and make recommendations to the Administrator within 90 days.

"In the meantime this Section provides that every member of the Industry shall file with the Administrator within 30 days after the approval of this Code, all prices, discounts, bonuses, terms and conditions of sale to all customers in order that the Administrator may be fully informed as to conditions in the Industry.

"We are now engaged in determining the exact form in which this information is to be submitted to us in order that every possible safe-guard may be adopted to preserve the confidential nature of the information. Will you, therefore, withhold submitting any data to us under this provision until you have received from us definite instructions as to exactly how the information shall be furnished. You will not receive these instructions until after the first of the year."

(f) Proposals for Simplification of Tire Lines

The unnecessary and expensive diversification of product in the Industry did not receive a great deal of attention in the period of Code making. But one witness at the Public Hearing emphasized this subject. Mr. E. D. Levy, President, Fisk Rubber Company, presented a proposal that each manufacturer be limited to the production of two price lines of tires, his first and second quality, and that each line be properly marked and identified as first or second quality.

In March of 1933, three of the largest companies had announced to the trade that they were dropping the production of third and fourth line tire, to simplify problems of production and reduce dealers costs in stocking and sale. Another of the largest companies did not follow this program and for competitive reasons the three makers who had, by October 1933, resumed the manufacture and sale of third and fourth line tires. They evinced little interest in proposed regulation of the matter under the Code.

The point was carried, by its aggressive spokesman, to the extent that the approved code contained a provision that upon completion of the Cost Control plan, the Code Authority should make recommendations to the Administrator for the simplification of the present line of tires.

Further, a provision was inserted for the submission of standard specifications for the standardization of manufacturing tolerances in the Industry. This was accompanied by the stipulation that product materially exceeding standard specifications should not be sold except at proportionately higher prices.

Rubber Manufacturing Industry - Proposals

The proposals dealing with price stabilization made to the Administration by the Rubber Manufacturing Industry are substantially the same as those which were included in the approved Code, and are discussed hereinafter under the heading of Industry under the Codes - C -

Trade Practice Provisions. The exceptions to this general statement are:

(a) Cost Recovery

Chapter IV - Rubber Footwear Division

This Division in the presentation of their Code, proposed that their Cost Committee should from time to time, upon the basis of the system of cost accounting provided for in the Basic Code, present a proper representative cost for the Division for various standard kinds and grades of footwear, which in their opinion would obtain during a limited period of the future, and on the basis of such costs should recommend a selling schedule, which should after its approval by the members of the Code in the Division, and by the Administrator, be adopted, and then promptly filed with the Association, together with a notation of the effective date.

As to such products of the Division as were not covered by the selling schedules mentioned above, no member should initiate prices on regular merchandise (other than on factory damaged and obsolete merchandise) at less than its unit cost of production, plus its related cost of marketing, including transportation, as determined by the uniform cost accounting system.

To justify such a proposal, the Cost Committee claimed that the Rubber Footwear business was a seasonable one, and in order to carry stabilization into effect, called for a policy on prices based on costs which were expected to carry over the entire season, thereby eliminating insofar as they could all speculative features.

(b) Open Price Filing

Chapter IV - Rubber Footwear Division

This Division proposed that the selling schedules approved by members of the Division and by the Administrator should be filed ten days before the beginning of the respective selling season of the product involved, and remain in effect during such selling season unless due to unforseen changes in costs, these schedules become inconsistent with costs, in which case the Cost Committee of the Division should promptly recommend new schedules for adoption.

Retail Rubber Tire and Battery Trade - Proposals

Negotiations for the approval of this Code were begun in August 1933, and after many meetings of the Code Committee and the Administration, the proposed draft of a Code was withdrawn at the request of the Administration, pending the approval of the Rubber Tire Manufacturing Industry Code. On account of all tire dealers being to some extent governed by the various tire manufacturers whom they represented, it was deemed advisable to discontinue all negotiations for a retail Code until such time as it was determined just what provisions would be included in the Manufacturing Code.

In view of the above decision, a hearing on a proposed Code for this Trade was not held until December 14th, 1933.

The Cost and Sales provisions, Article VII, proposed at that time were:

(a) Cost Recovery (Section 1)

Every member was to install and use an accounting system which conformed to the principles of, and was at least as detailed and complete as, the uniform and standard method of costing which was to be formulated and approved by the Code Authority, with such variations therefrom as might be required by individual conditions affecting any member or group of members. This provision was considered impractical and was deleted from the Code before its final approval.

(b) Price Filing (Section 2)

Every member was to file with the Association in such manner and form as the Code Authority might prescribe, a schedule or schedules showing its consumers and preferred wholesale price lists, with maximum discounts and trade-in allowances. Thereafter no member was allowed to offer, sell, deliver, or exchange his products at prices lower, or on terms more favorable than the prices and terms on file with the Association, unless he had first revised his filed prices.

The reaction of the Trade on this provision, according to a statement made by Mr. J. D. Tew, President of the B. F. Goodrich Company in a letter dated February 2, 1934, to the Administration, was unanimously supported by the independent dealers and manufacturers' retail stores which, he estimated, represented 75 to 80 per cent of the retail volume of the Industry. The provision also had the conditional approval of the oil companies distributing special brand tires, but it was unconditionally opposed by mail-order houses and automotive chain stores, which, he estimated, did not exceed 15 per cent of the Industry retail volume.

(c) Trade-in Allowances (Section 2)

Again referring to Mr. J. D. Tew's letter of February 2, 1934, he stated that in this particular matter there was less unanimity of agreement among dealers than on any of the other provisions of this Article. This provision, however, in his opinion, would probably command a larger affirmative vote from dealers than any other that could be substituted.

No member was to make any trade-in allowance, aside from the warranty or adjustment, except in the case of the purchase of a first-line passenger car tire. No member was to make any allowance aside from warranty and adjustment in such cases which would bring the net realized price for the new tire sold to less than the member's Preferred Wholesale Price (except changeovers involving new tires.)

(d) Establishment of Price Differentials (Section 2.)

It was recognized that there were certain semi-national, local

and private brand distributors of tires, due to lesser consumer acceptance of their products, who should be entitled to definite differentials in their schedules for Catalog, Consumer, or Preferred Wholesale Price Lists.

In view of this recognition, it was requested that a study be authorized of conditions existing in the Trade by the Retail Tire and Battery Trade Code Authority and the Tire Manufacturing Industry Code Authority, together with representatives of the Administration, in order that recommendations might be made to the Administrator within 30 days after the approval of the Code, covering differentials to be allowed the various marketers. Pending approval of such recommendations no member was to be permitted to offer to any consumer or commercial account any tires at greater differentials than those existing in price lists as of November 15, 1933, and in no case at a greater differential than 10 per cent below the list prices of the following manufacturers: Goodyear, Firestone, Goodrich, United States, General, and Kelly-Springfield, and further excepting those members who had catalogs or printed price lists which were established prior to November 15, 1933. The differentials referred to were not to be applicable to Federal, State, County, or City business.

With further reference to Mr. J. D. Tew's letter of February 2nd, 1934, he commented on this provision along the following lines.

"This provision was supported by independent dealers and manufacturers' retail stores, which represented at least 75 per cent of the dollar volume of the Industry, and was conditionally supported by the oil companies selling special brand tires. It was, however, unconditionally opposed by the mail order houses and the automotive chain stores, which he estimated could not exceed 15 per cent of the volume."

The Consumers Advisory Board in commenting on this Article VII, stated that with the formulation of this Code and the Manufacturers' Code, there came an opportunity to get together and place the merchandising of tires once and for all time on a firm and logical basis, such as the trade had not enjoyed in many years past. That opportunity was apparently completely overlooked, as there was nothing in the Code to prevent a recurrence of the devastating price wars which had periodically demoralized this Trade and wrought havoc among its members. The Board recommended the deletion of Article VII and that it be rewritten in the light of the spirit and intent of the Act, with a cost recovery provision that would prevent ruthless slashing of prices, and would insure the free play of competitive factors of manufacturing cost, technical skill and sound distribution.

The foregoing excerpts from various sources are typical, and are cited to show the diversity of opinion existing, and the problem confronting both the Industry and the Administration in formulating a constructive instrument for fair competition.

(e) Emergency price-fixing.

This proposed provision and its operation is the subject of special treatment, and is discussed fully hereinafter.

(f) Other provisions.

There were other Industry proposals designed to assist in price stabilization. These included:

(1) A provision for a standard warranty on tires.
(2) A provision prohibiting combination sales.
(3) Other provisions.

In other words, the Trade proposed Code provisions to cover all the unfair trade practices that had existed or might exist in the future to try to stabilize the price structure in the Industry under the Codes.

4. ASSENT TO AND APPROVAL OF CODES

(a) Rubber Manufacturing Industry

In the formulation of this Code, as has been pointed out in Section 4 (a), much time was consumed in separating the various product divisions of the Industry into groups for which divisional codes could be drawn. Once these groups had completed their work events moved swiftly, and the proposed Code submitted by the Industry on September 26, 1933 became the subject of a public hearing on October 25th. Following the hearing, further revisions in the Code were made, none of which were actively contested in any division, and the final draft of the Code was prepared by November 20th.

Assent to this Code was received from the several Code Committees concerned by December 4th. The Code was approved by the President on December 15th, and it became effective on December 26th, 1933.

(b) Rubber Tire Manufacturing Industry - Code #174

The preparation of this Code occasioned bitter controversies in the Industry, both prior to and after the Public Hearing held on October 20, 1933. One group of small manufacturers held out for rigid control of selling prices, while a group of large manufacturers contested just as vigorously for freedom from any rigid code regulations in this respect. This struggle at one time threatened to prevent agreement of a representative majority of the Industry on any code compatible with N.R.A. policy. Meeting after meeting was held, briefs and pleas were presented by each faction, until finally on December 19th, 1933, the Administration called the members of the Industry to a meeting in Washington.

At this meeting the Administration proposed to the Industry that they agree upon a Code in which the moot point of market stabilization would be delegated to the Code Authority, which body was to present to the Administration, a plan approved by the Industry within 60 days. At the same time the Administration proposed to provide a stop-gap stabilization of prices by requiring all members to immediately file current prices and terms with the Administration, which were not to be

revised downward except after 10 days notice. The Administration also committed itself to early approval of a Retail Tire Code, which would provide for stabilization and control of the price situation in the retail field.

At this meeting a majority of the Industry in number and in volume consented to the Code with the provisos mentioned. The Code was approved by the President on December 21st and became effective on December 25th, 1933.

(c) Retail Rubber Tire and Battery Trade Code - #410

Early action on a Code for this Trade was delayed both by efforts to secure a vertical Code for the Tire Industry and Trade, and by the controversy in the Tire Manufacturing Industry over negotiations for approval of their Code. A hearing was not held on the proposed Code for the Retail Tire Trade until December 15th. The Code as submitted at the public hearing contained so many and such drastic restrictions as to prices and marketing practices, that it appeared almost an insurmountable task to develop from it an instrument compatible with N.R.A. policy and yet satisfactory to a majority of the Trade.

During the ensuing negotiations and delays severe price wars developing in the Trade necessitated action by the Administration which culminated in the 40 day price truce agreed to on March 30th, 1934. During the period of this truce the Administration moved swiftly to develop a Retail Tire Code which would incorporate provisions for dealing with the emergency existing in the trade through the establishment of minimum retail prices on tires. These provisions being completed, assent to the Code was promptly obtained from a majority of the Code Committee, and the Code was approved on May 1st, to become effective May 14th.

B. LABOR PROVISIONS IN CODES

1. HOURS

The Code for the Rubber Manufacturing Industry (other than tires) provided for a basic work week of 40 hours with not more than 8 hours in any 24 hour period. It permitted a tolerance of 80 hours per year in excess of the maximum hours thus specified, but not more than 48 hours in any one week. All overtime in excess of 40 hours per week should be paid for at the rate of time and one-third.

The Rainwear Divisional Code likewise provided for a maximum of 40 hours per week, 8 hours per day, with the additional stipulation that such work was to take place in 5 days of the week, exclusive of Saturday and Sunday. In the Rainwear Division overtime was expressly prohibited.

The Code for the Rubber Tire Manufacturing Industry provided for a basic work week of 36 hours, averaged over the calendar year, a maximum of 42 hours in any one week, all hours over 36 per week to be paid for at the rate of time and one-third.

The Retail Tire and Battery Code provided for a basic work week of 48 hours, with not more than 10 hours in any one day, no employee to be permitted to work more than 52 hours in any one week, while all hours worked in excess of 48 per week or 10 per day were to be paid for at the rate of time and one-third.

In all three codes the usual exceptions were made in the case of maintenance crews, watchmen, salaried employees in the upper brackets, and certain other specified occupations.

Adequacy of Hours Provisions

That the maximum hours provided in the manufacturing codes would not produce any considerable increase in employment of workers was a foregone conclusion. Under the President's Reemployment Agreement the Rubber Manufacturing Industry (other than tires) had been limited to a 40 hour week. The number of workers had been increased from 42,600 in May 1933, to 66,800 in October of that year. Part of this increase may be attributed to increased manufacturing activity in anticipation of higher prices under the Codes, yet much of it was due directly to the shortened hours. The 40 hour provision in the Code, therefore, did not materially change the situation from that voluntarily adopted by the Industry. There was no increase in employment after December 1933. In fact, employment declined, primarily due to lagging business conditions, so that for the year 1934 average employment was only 57,900, even though average hours worked per week were well below the maximum provided being only 34.9 hours.

The Rubber Manufacturing Industry is not a growing Industry, and it is doubtful if the volume of production attained in 1928 and 1929 will be reached again for some years to come. This, coupled with the technological displacement of workers and increasing productivity of labor will make it difficult to restore previous levels of employment unless the work week is shortened still further.

The 40 hour basic work week limitation under the Code resulted in requests for 19 exemptions, 9 being granted, and 10 denied. It would appear that a more flexible limitation would have been desirable, from the point of view of the Industry and of labor as well.

A basic maximum hours limit, with successively increasing penalties for overtime would have given management more latitude to meet unforseen emergencies and seasonal demands for labor and yet would have discouraged overtime employment and encouraged addition of new employees whenever justified. Such an arrangement would have avoided resort to government intervention or sanction in ordinary business emergencies, but would have given government control, through checking of payrolls, to prevent violation of labor standards or the exploitation of labor.

Such an arrangement would have been simpler and less expensive in operation, both for Government and Industry, and would have been more popular with management. With proper measures for administration it would have accomplished the purposes of the Act, relieving unemployment and increasing purchasing power as effectively as did the provision approved under the Code.

In the Tire Manufacturing Industry, in only two months during 1932 and 3 months during 1933, had workers averaged the 36 hours per week provided as a maximum by the Code. In view of the greatly increased productivity of labor it was estimated that even on a 25 hour week basis, the production required to re-absorb the workers employed during 1927, '28 and '29 would have been far above that required by market demands for years to come.

Management had made every effort to spread work and increase the number employed by shortening hours. In all the larger establishments a 6 hour shift and a 24 hour day was the rule. In smaller factories and particularly those in smaller communities management usually tried to provide work for about the same number of employees throughout the year, working short weeks and short days in winter, long days and long weeks in summer.

Usually in the smaller establishment, limited working capital and difficulty in forecasting demand prevented the accumulation of finished goods inventories and required production to conform closely to sales. Thus it appears that the 36 hour week, averaged over the year, was well suited to the needs of the majority of the Industry, though it proved quite restrictive to some of the smaller establishments. This is borne out by the requests for exemptions received.

The average number of employees in the Tire Manufacturing Industry in 1929 was 83,260. This declined to the low point of 41,780 in March of 1933, but increased to 64,110 by August of that year. The average for the year of 1934 was 62,150. Weekly hours worked averaged 44.2 in 1929, 31.7 in 1933, 30.7 in 1934.

In those establishments in the Industry which engaged in the manufacture of both tires and other rubber goods some conflict and confusion resulted from compliance with the differing hour provisions of the two Codes. Here, again, the greater flexibility urged in a previous paragraph would have aided in fitting these restrictions to the needs of the Industry.

In the Retail Tire and Battery Trade working hours were materially reduced by the Code provisions. In the type of service establishments retailing tires long hours and seven days a week had been the rule rather than the exception. It would be assumed that the shortening of hours would have resulted in considerable reemployment. However, frequently store hours were reduced and attendance of personnel was staggered so that it is doubtful if the reemployment actually resulting came up to expectations.

The fact that the Code permitted longer hours than did the Petroleum Code, the Motor Vehicle Retailing Code, the Motor Vehicle Maintenance Code, all of which were applicable to many establishments also retailing tires, resulted in some conflict. It would appear that the hours provision of such closely related trades should have been in agreement and that the Retail Tire Code should have conformed to the Codes for the above group rather than to the Code for the

general retail trade, in this respect.

Unfortunately the Retail Tire Code Authority collected no statistics on hours or employment. Statements as to the effect of these provisions in that trade must be based upon individual knowledge of conditions rather than upon actual statistics.

Any general conclusions as to the adequacy of the hours provisions in the Rubber Industry Codes in accomplishing the purposes of the National Industrial Recovery Act must take into consideration the fact that demand for the Industry's products did not increase. The limitation of maximum hours would doubtless have insured the employment of more workers, had this been the case. As it was, there was no greater restriction than Industry had voluntarily placed upon itself and the only requests for exemption arose from the inflexible nature of the code restrictions in isolated cases of emergency confronting individual establishments. In the case of the Retail Tire Trade the provisions may be said to have been inadequate to provide any considerable increase in employment and to some extent in conflict with provisions in codes for related trades.

2. WAGES

The Code for the Rubber Manufacturing Industry (other than tires) provided for a minimum wage of 35 cents per hour; in the Rainwear Division the minimum for non manufacturing employees was 35 cents per hour, and for manufacturing employees 40 cents per hour. In all Divisions apprentices during a six weeks apprenticeship were to receive not less than 28 cents per hour.

The Code for the Rubber Tire Manufacturing Industry provided for a minimum wage of 40 cents per hour and apprentices, during a six weeks apprenticeship, were to receive not less than 80 per cent of this or 32 cents per hour. This Code, however, contained the so-called "1929 clause" as follows:

> "Where the hourly rate for the same or similar class of work on July 15, 1929, was less than forty ($0.40) per hour, no employee shall be paid less than the rate per hour paid on July 15, 1929, but in no event shall the rate per hour be less than $0.35."

The Code for the Retail Tire and Battery Trade provided for an hourly rate of not less than 40 cents per hour in Northern States and 35 cents per hour in Southern States for employees paid on an hourly basis or part time workers.

All three Codes provided for the same schedule of minimum rates for salaried workers, as follows:

$15.00 per week in cities over 500,000;
$14.50 per week in cities between 250,000 and 500,000;
$14.00 per week in cities between 2,500 and 250,000;
$12.00 per week in cities under 2,500.

The Code for the Retail Tire Trade, however, provided for a differential of $1.00 below the above rates for salaried workers in all cities of over 2,500 population in the Southern states.

All three Codes made the usual stipulations as to wages for clerical apprentices, partially incapacitated employees, and female workers performing the same work as male employees. Both Manufacturing Codes contained provisions for equitable adjustments to be made in all pay schedules of factory employees above the minimum within 30 days after the approval of the Code by all employees not having previously made such adjustments.

Adequacy of Minimum Wage Provisions

Statistics already given in Section II-D of this report set out the gains in hourly rates and payrolls made in the Rubber Industry under the Codes. There was a decided increase in the tire division and a continued increase in hourly wages and weekly earnings throughout the period covered by the Code. In the Other Rubber Goods Division, substantial gains were made from depression levels though pre-depression hourly or weekly wage levels were not reached.

The disparity in wage rates between the tire and other rubber goods manufacturing divisions was more marked during and subsequent to the period of the Code than before. This may be accounted for to some extent by the concentration of labor in the tire division in the Akron, Ohio, and Detroit, Michigan districts. Both are high wage cities and at least 60 per cent of tire workers are located in the Akron district, and a considerable number in Detroit.

No such concentration of labor in any one district occurs in the other rubber goods division and the majority of workers are in smaller establishments and frequently in smaller communities.

To what extent this disparity of rates was affected by the differing minimum wage rates established for the two divisions is not known. Further inquiry into this situation may well be in order, as to whether the lower minimum for other rubber goods workers was justified by differences in location or living costs.

The "1929 clause" in the Tire Manufacturing Code should have been deleted. It was taken advantage of by only a few establishments. In operation such a provision is difficult to administer, necessitating accurate records of wage rates on individual operations for at least 5 years past. It can serve only to perpetuate inequalities, the code itself was designed to correct.

The Code Authorities for the two manufacturing Codes, through their administrative agency, the Rubber Manufacturers Association, computed complete figures on adjustments in wage rates above the minimum made by members between May 1933 and January, 1934. A tabulation of these adjustments is shown in the following table.

Percentage of Increase	Tire Manufacturing		Other Rubber Manufacturing	
	No. of Employees	Per cent of Total	No. of Employees	Per cent of Total
0 - 4 %	505	.4 %	940	1.3 %
5 - 9	59,939	48.9	22,887	30.7
10 - 14	56,430	46.1	29,384	39.6
15 - 19	2,247	1.8	9,931	13.4
20 - 24	254	.2	6,619	8.9
25 - 29	437	.35	2,631	3.5
30 - 34	2,452	2.0	407	.54
35 - 39			270	.36
40 - 44	9	.01	179	.25
45 - 49			19	.02
50 - 54	244	.2	392	.52
55 - 59			26	.03
60 - 64	38	.04	128	.17
65 - 69			1	.00
over 70			114	.15
Percentage of Decreases				
5 - 9			81	.10
10 - 14			164	.20
15 - 19			30	.04
Total Employees	122,555	100.00	74,203	100.00

3. MODIFICATIONS, AMENDMENTS, EXEMPTIONS OR STAYS

No amendment of the labor provisions of the Rubber Industry code was made. Thirty-three requests for exemption under the labor provisions of the Rubber Manufacturing Industry Code were received and determined upon as follows:

	Received	Granted	Denied
From minimum wage provisions	8	1	7
From maximum hour provisions	20	12	8
From Rainwear apprentice provisions	5	4	1
	33	17	16

In the Rubber Tire Manufacturing Division 4 requests for exemption were received, 2 from the maximum hours provisions, one of which was granted, and two from the minimum wage provisions, both being denied.

Two requests were received from members of the Retail Tire and battery Code, both being denied.

4. INDUSTRY COMPLIANCE WITH LABOR PROVISIONS

The degree of compliance with Codal labor provisions in the manufacturing codes was really excellent. A summary of all labor complaints docketed by the N.R.A. State Compliance offices under the two manufacturing codes follows. This includes all complaints to and including May 25, 1935.

	Rubber Tire Manufacturing	Other Rubber Manufacturing
Total Docketed	67	221
Investigated Complaints:		
Adjusted	25	105
No violation found	28	80
Bookkeeping rejections	7	12
Referred to District Attorney	3	2
Referred to Compliance Division or Regional Offices		4
On hand May 25, 1935	6	18

These figures do not include those labor complaints handled by the Trade Practice Complaints Committees, authorized to handle such complaints when filed by one employer against another.

While the record is not available in detail, experience during Code administration would indicate that a relatively large number of complaints docketed under the Other Rubber Manufacturing Code originated in the Rainwear Division, other divisions having a much better record in this respect.

In addition to the above, two complaints against tire manufacturing establishments concerning violation of the collective bargaining provisions of Section 7 (a) of the Act were heard by the National Labor Relations Board. In both cases injunctions against removal of N.R.A. insignia by the Compliance Division were secured in United States District Courts and the cases were pending when the decision in the Schechter case terminated further action.

Under the Retail Tire and Battery Code 651 labor complaints were docketed by N.R.A. State Compliance offices. Detail as to the disposition of these cases is not available. During the earlier history of this Code compliance as to labor provisions was excellent. Later, due no doubt to the emphasis placed upon price controversies and the failure of the Code Authority to organize for effective administration of the Code, compliance showed a rather general break down.

Conclusion: Had the Rubber Industry shared in the general improvement in business activity and earnings during the period Codes were in effect, the labor provisions, as written, would have been adequate to assure labor sharing equitably in the increased prosperity. As it was, in the tire manufacturing division alone do we find marked recovery in labor's situation.

It can be said of the period of Code administration as well as during most of the history of the rubber industry, that labor has fared better than capital and that future security for workers can only come from greater stability and profitability in the industry.

C. PRICE STABILIZATION PROVISIONS

1. UNIFORM ACCOUNTING AND COST RECOVERY PROVISIONS

The basic cost recovery provisions for the Rubber Manufacturing Industry, Code #156, were set forth in Chapter I, Article VII-A, Sections 1 and 2.

Section 1 provided that each member of the Industry should substantially adopt the cost accounting formulas advocated in the Rubber Manufacturers Association Accounting Manual, after its approval by the Administrator.

In accordance with this provision, the Code Authority - Code #156, submitted in January 1934, the "Uniform Accounting Manual," for the Industry, for the approval of the Administrator.

No definite action was taken by the Administration for some time in this matter as the Administration's policy on these issues was still in a formulative state. This is evidenced in a letter that General Hugh S. Johnson wrote to Senator M. E. Tydings on February 17, 1934, which stated in part:

"****** in regard to the approval of the cost accounting manuals by the Administration, this has been receiving considerable study. We are endeavoring to formulate a policy which may best be calculated to safeguard the interests of all concerned.

"As you can understand, the problem is not an easy one. We certainly do not want to approve anything which will put a small enterprise to a disproportionate expense in trying to maintain any particular system. The problem is primarily one of evolving an adequate definition of the elements of cost, which may properly be applied in the case of Codes which prohibit selling below cost."

The Cost and Market Stabilization provisions for the Rubber Tire Manufacturing Industry - Code #174, were set forth in Article V, and provided that the Code Authority should immediately upon approval of the Code proceed with a study of a market stabilization plan based on cost control.

This study was undertaken to develop, under the direction of the Code Authority, a standard uniform system of accounting for the guidance of each member of the Industry. The Code Authority was to designate, with the approval of the Administrator, a disinterested and impartial agency to compile data required for the study, and to act as a confidential agent through which such compiled data should be transmitted to the Code Authority.

The first action taken by the Code Authority was to designate the Rubber Manufacturers Association as the disinterested and impartial agency to collect and compile cost data. (*) The Association Accounting Manual was the result of years of careful study by members of the Industry and the staff of the Rubber Manufacturers Association. A large percentage of the members were favorably impressed with it, and considered it a very essential business instrument in the determination of costs and prices, and after the Code had been approved were very anxious to put it into operation on a mandatory basis. They considered the approval of the Accounting Manual as the keystone to all their cost stabilization plans, and were sorely disappointed at the delay in its approval by the Administration.

Finally, on June 5th, 1934, a joint Public Hearing on the "Uniform Accounting Manual" for both the Rubber Manufacturing Industry and the Rubber Tire Manufacturing Industry was held in Washington, D. C.

In presenting the "Uniform Accounting Manual" at the Public Hearing, the Industry made the following general statement:

"This Uniform Accounting Manual for the Rubber Manufacturing Industry differentiates between principles to be used in the determination of cost for historical purposes and cost estimated as a basis for initiating selling prices. The uniform plan for the

(*) Ref. Administrative Order #174-3 of March 1, 1934

calculation of costs for the initiation of selling prices is necessary in the maintenance of fair competition between various members of the Industry and its sub-divisions inasmuch as there are factors that serve to disrupt and demoralize the price structure of this and any other industry owing to the absence of a complete definition of cost. For the purpose of effectuating the terms of the Codes referred to above, the Accounting Committee of this Association, and strictly from an accounting point of view, and without company prejudice, agreed upon the principle contained in the Cost Formula which will serve specifically to define cost as it applies to the provisions contained in Article VII of Chapter I, of Code No. 156 and the proposed Article V, for Code No. 174.

"The process of cost accounting involving as it does the allocation to products of indirect charges only remotely associated with them, is essentially an art and not a science, since an accurate or specific allocation of these charges is impossible. True, 'actual' costs are never known.

"It is needless to emphasize the advantages to be gained from the adoption of Uniform Accounting within an Industry. Uniform Accounting has been advocated for a number of years by the Federal Trade Commission, Accounting Societies and Trade Associations. The absence of Uniform Accounting unquestionably is partially responsible for destructive competition where it exists in any industry. The Manual and Cost Formula submitted to the Administrator for approval contains general accounting principles which are widely accepted and recognized by accountants and industry in general, and we do not believe that there can be much disagreement with any of the fundamentals incorporated in this section of the Manual. Suffice it is to say that the principles can be followed by both large and small companies alike, the smaller companies naturally maintaining less detail than the larger companies, but at the same time observing the fundamentals prescribed without imposing any undue hardship on even the smallest company.

"Even where Uniform Accounting is universally adopted within an industry, there are certain other factors of an economic nature that tend to create destructive competition. To correct these conditions, the Cost Accounting Formula for the Calculation of Rubber Product Costs for Establishment of Selling Prices was inserted as a part of this Manual."

The essential factors in the Cost Accounting Formula presented by the Industry were:

(a) Costs of major raw materials to be computed at replacement or market values.

(b) Depreciation to be computed at reasonable rates not less than rates recommended in the Manual upon values not lower than current replacement costs.

(c) Distribution of factory overhead on a seven year Industry rate of capacity production.

Chapter I, Article VII-A, Section 2 of the Code for the Rubber Manufacturing Industry provided that no member of the Industry should initiate the sale and/or exchange of any product of its manufacture at a price or upon such terms or conditions as would result in the customer paying less than the seller's own individual cost, which was to be determined in accordance with the Manual.

This Code also permitted the establishment of "the cost of the most efficient member of the Division: i.e., that representative member of the Division whose cost was lowest", as a floor price.

This provision was included in the following Chapters:

Chapter II, Automobile Fabrics, Proofing and Backing Division.

Chapter IV, Rubber Footwear Division.

Chapter VII, Mechanical Rubber Goods Division.

Chapter X, Rainwear Division.

On June 7th, 1934, two days after the Hearing on the Manual, Office Memorandum #238 was issued which determined the policy which was to govern pricing practices under future codes and to which it was desired to adjust already approved codes by amendments worked out by agreement with Code Authorities.

In brief, the policy established by N.R.A. after months of study and experiment was generally concurred in by the several Advisory Boards as well as the legal and Research and Planning Division, was as follows:

"To ban even fixing of minimum prices except in emergencies which made such action necessary to halt destructive price cutting, protect small enterprises, curb monopolistic tendencies or maintained code wages and working conditions;

"To permit open price provisions where desired by an industry under conditions requiring posting of prices with a confidential disinterested agency for distribution to all members of the industry and customers willing to pay for the service - such posted prices not to be revised upward for 48 hours.

"To encourage the inclusion of model cost finding and accounting provisions which shall, however, not be obligatory, but not to encourage uniform additions in the form of percentages of differentials designed to bring about arbitrary uniformity in cost or prices.

"An important feature of the ruling against the establishment of minimum prices except in emergencies is that adequate machinery is set up to prevent cut-throat price competition between emergency periods. The procedure permits any interested individual to complain of destructive prices to the code authority which, if

unable to adjust to the satisfaction of complainant and respondent, will refer the complaint to NRA's Research and Planning Division."*

This immediately raised a question of Administrative policy in connection with the Code and the Manual.

The "representative cost" provisions of necessity had been inoperative pending the approval of the Accounting Manual, as there was no adequate yardstick for the determination of costs for such approval. If the several Divisional Code Authorities had proceeded and established minimum floor prices, there would have been no assurance that sales below such costs would have constituted a Code violation.

The specific recommendations of the Division of Research and Planning dealing with the three essential factors of the cost formula mentioned hereinabove, were contained in their report of August 1, 1934. This report read in part as follows:

"The following changes in the cost formula for this Industry will meet the objections raised by this Division:

"1. Raw materials should be priced at the lower of actual cost or current market value.

"2. The basis for the inclusion of fixed overhead in costs should be the higher of the industry average, determined as proposed, or the manufacturers' own average use of productive facilities, similarly determined, whichever produces the lower mark-up.

"3. The depreciation provisions should coincide both as to basis and as to rates with the rules of the Bureau of Internal Revenue, except where the basis has been artifically lowered, as by a reorganization or capital readjustment, when the basis may be either what it would have been if the reorganization or readjustment had not taken place of fair replacement value."

Subsequent to the public hearing, the Code Authority for the Rubber Manufacturing Industry had advised the Administration that it would assent to the staying of all provisions relating to the establishment of "representative costs", if the Accounting Manual could be approved in the form submitted. The Code would then prohibit all members of the Industry from initiating a price below their own individual costs as determined by the Manual. Later - September 17th, 1934, the Code Authority, Code #156, held a meeting and unanimously agreed that on behalf of the members of the Industry, the Code Authority would accept, with reservations, the changes demanded by the Administration and contained in the report of the Division of Research and Planning, dated August 1, 1934;

The reservations made by the Code Authority at the time were:

* N.R.A. Release No. 5600, June 7, 1934.

"It is understood that in agreeing to accept these modifications of the Cost Accounting Manual, the members of the Code Authority have not changed their belief in the soundness of the Manual as originally submitted, and that it is their intention to continue to advocate the use of the original cost formula and the principle of 'replacement values', even though they accept for the time being, the principle of 'cost or replacement values, whichever is lower', for material; the lower actual cost or formula cost for overhead; and the maximum as well as the minimum rates of depreciation.

"The members of the Code Authority are of the opinion that if the formula suggested by the N.R.A. is employed by the Industry for a short while, they will be able to furnish concrete evidence that such a formula is not adapted to the needs of the Rubber Manufacturing Industry, and that the Cost Accounting Manual as originally submitted to the N.R.A. should be approved."

The Uniform Accounting Manual for the Rubber Manufacturing Industry - Code #156, was finally approved in September 1934, by Administrative Order 156-37, subject to the following conditions and requirements:

"1. The operation of provisions of Chapter II, Article III-A, Section 1: Chapter IV, Article III-A, Section 2; Chapter VII, Article IV-A, Section 2; Chapter X, Article V-A, Section 1 of the Code of Fair Competition for the Rubber Manufacturing Industry be and the same are hereby stayed indefinitely pending the submission by the Code Authority within thirty (30) days of amendments deleting said provisions from said Code and making applicable in lieu thereof the provisions of Chapter I, Article VII-A; provided that the application of said provisions of Chapter I, Article VII-A, is construed not to prohibit any member of the Industry from selling below his own individual cost in good faith in order to meet the competition of any other member.

"2. That the value of raw materials shall be computed by all members of the Rubber Manufacturing Industry on the basis of cost or market whichever is lower.

"3. The basis for the inclusion of fixed overhead in costs shall be the higher of the Industry average, determined as set forth in said Manual, or the Members' own average use of productive facilities, similarly determined, whichever produces the lower mark-up.

"4. All members of said Industry shall use in the calculation of depreciation charges the depreciation provisions which coincide both as to basis and as to rates with the rules of the Federal Bureau of Internal Revenue, except where the basis has been artifically lowered as by reorganization for capital readjustment, when the basis may be either what it would have been if the reorganization or readjustment had not taken place of the fair replacement value.

"5. The Code Authority for said Industry shall within 90 days from the date hereof report to the Division Administrator as to the results of the use of said Manual in connection with the operation of the provisions of Chapter I, Article VII-A, of said Code." (*)

Pursuant to the requirements contained in the above Administrative Order, Paragraph I, the Industry submitted the Code amendments, deleting the "representative cost" provisions and on December 18, 1934, these amendments were approved by Administrative Order #156-56, which became Amendment #3 to Code #156.

The Tire Manufacturing Industry did not follow the lead of the Rubber Manufacturing Industry, and after their joint presentation of the Accounting Manual at the Hearing on June 5, 1934, refused to accept the changes in the Manual recommended by the Research and Planning Division in their report of August 1, 1934. A bulletin from the Code Authority requesting a vote of the Industry on the proposal of N. R. A. was practically ignored, only a few decidedly negative replies being received.

The Cost Formula and Standard Uniform Accounting Manual being the corner-stone of any market stabilization plan in the Tire Division, no further action was taken by the Industry or Administration.

The cardinal principle embodied in the Cost Formula of the Manual as presented - from the viewpoint of the Tire Manufacturing Industry - was that raw materials should be priced at current replacement cost, rather than on the basis of cost or market, whichever is lower, and when the Administration refused to approve such a principle the Industry lost interest in the matter.

As for further action on the Accounting Manual as approved for the Rubber Manufacturing Industry, Code #156, condition #5 of Administrative Order #156-37 gave the Industry the opportunity to report on the operation of the Manual. This condition #5 was included in the Order to allow the Industry to furnish concrete evidence that the cost formula as approved was not adapted to the needs of the Industry.

Up to the time of the termination of code administration, such a report had not been forthcoming because the Code Authority on several occasions had requested an extension of time in which to report, beyond the 90 days originally granted, the contention being that the Industry had not had sufficient experience with the Manual as approved to make an intelligent report. These requests had been granted with the understanding that before June 16, 1935, a report would be submitted, or further suitable Administrative action would be taken.

Although the Cost Recovery Provisions, so approved for Code

(*) Administrative Order 156-37, dated September 25, 1934.

#156, were used in a number of instances by the Code and Divisional Code Authorities, and their Trade Practice Complaints Committee in checking alleged sales below cost, only one such case was referred to N.R.A. for further action, all other instances apparently having been adjusted.

Experience would indicate that Cost Recovery Provisions such as were embodied in the Code for the Rubber Manufacturing Industry, were very difficult to administer, and the cost and time elements in determining code violations were a deterring factor in effective administration.

A discussion of the minimum price provisions for the Retail Rubber Tire and Battery Trade is included in connection with the declaration of emergency in the Retail Rubber Tire Trade.

2. OPEN PRICE FILING

(a) Rubber Manufacturing Industry - Code #156.

The following discussion sets forth the experience of the Industry under the open price filing provisions of the several Divisional Codes.

Chapter II, Automobile Fabrics, Proofing, and Backing Division.

Article III, Sections 2 and 3 set forth the open price filing system under which this Division of the Industry operated. It provided for price filing of auto-topping fabrics only, and had a five day waiting period specified before prices could become effective.

Until the early months of 1934, the system operated comparatively successfully, and the members made a conscientious effort to live up to their filed prices. However, as Code violations became more prevalent, a gradual breakdown in compliance with filed prices ensued, finally conditions became so bad that the Industry requested the Administration to stay the price filing provisions. Final Administrative action on this application was pending when the Code became inoperative.

The major factor which contributed to the breakdown of filed prices was the very material shrinkage in volume of business available, brought about by the very definite curtailment of auto-topping fabrics in the Automobile Industry during recent years.

Chapter III Rubber Flooring Division.

Article IV, Sections 1 and 2 and Article III, Section 2 set forth the open price system used for this Industry group.

This system provided for an open price filing system with a fifteen day waiting period before price reductions could become effective. It further provided that Distributors, Sales Agents, and Special Brand Accounts comply with the open price filing provisions and trade practices of the Code.

This system presented practically no administrative problems. The members of the Division cooperated wholeheartedly, improved conditions in this Industry, and were enthusiastic about the operation of their price filing system. The participation of Distributors, Sales Agents and Special Brand Accounts as members of the Division insofar as compliance with the open price filing provisions were concerned, helped in stabilizing prices and worked out to the satisfaction of all concerned. Due credit for this good showing must be given to an efficient Divisional Code Authority. Compliance with filed prices was excellent. This is the outstanding example in the Rubber Industry where real benefits were derived from the open price filing system.

The efficient administration of this Divisional Code may be further explained by the fact that there were only 15 members in the Division, all of whom had confidence in each other's integrity and took a real interest in the Code.

Chapter IV Rubber Footwear Division.

Article V, Section 1and Article VII, Section 1 contained the open price filing provisions for this commodity group.

The system provided for the annual filing of unit prices, discounts, and terms of sale for all standard products. Such filing to be made ten days prior to the opening of the "advance order" season. No member, of course, was allowed to sell below filed prices. Any member was allowed to file new schedules to meet competition within thirty days after the opening of the aforesaid "advance order" season, which new schedules should not become effective for ten days from date of filing. On changes in price schedules other than those described above, it was required that they be supported by adequate cost data to warrant such change.

It was also provided that jobbers and agents should comply with the Marketing Standards, Price Filing Provisions, and Trade Practices.

The open price filing provisions from the outset were a point of controversy and the members of the Division, were divided into two factions, eight favorable and four opposed. The contention was that these provisions would lead to monopolistic practices and were disadvantageous to the smaller companies. This controversy finally resulted in an appeal by the dissenters to the Federal Trade Commission and resulted in litigation before that body between Phillips-Baker Rubber Company et al and the National Recovery Administration - Docket 2201.

The eight complying members complied with the price filing system for some months, that is until August 1934, but when it became apparent to them that it would undoubtedly require months before the litigation before the Federal Trade Commission could be terminated and the non-complying members brought into line, they felt that they could no longer continue to file prices in justice to themselves under the conditions, and therefore made application to the Administration for exemptions from the price filing provisions of their code.

Administrative Order #156-29, dated August 20, 1934, gave the complying members of the Division the relief requested by granting each of them an exemption from the provisions in question. Shortly before the issuance of the Order, one of the dissenting companies filed its prices with the understanding that by so doing, it retained its original status in the litigation before the Federal Trade Commission. Subsequently this company was granted an exemption with the other companies by Administrative Order 156-29. This still left the other three dissenting companies in the position of non-compliance with the Code.

Finally, after a number of months had elapsed, the non-complying and complying members decided to get together to work up some constructive policy on price stabilization for the future, rather than to continue as two separate factions.

The first step in trying to accomplish this was for the Division as a whole to request a stay of the open price filing provisions so that all members would start with the status of being in Code compliance. This request for a stay was granted the Rubber Footwear Division by Administrative Order #156-71, dated March 25, 1935, with the understanding that at the first practical opportunity the Division would submit an amendment to their Code in the matter of open price filing.

Up to the time of the termination of Codes, such an amendment had not been presented to the Administration.

Chapter V - Hard Rubber Division.

Article V, Section 2 of the Divisional Code, provided for an open price filing system with a ten day waiting period before prices could become effective for all products which had been classified as standard-line products by the Divisional Code Authority.

Generally speaking, the operation of this open price filing system was satisfactory, and presented few administrative problems.

There was only one dissenter in the Division who caused considerable trouble in connection with the filing of prices. His contention was that he did not want to divulge to his competitors the secrets of his business and that the filing of prices would, in his opinion, lead to nothing but regulations which would constitute a price monopoly. He finally did file his prices to a separate selling agent, which filing in the opinion of the other members of the Division disclosed nothing, and gave very little information as to the actual selling price of his product. Just prior to the termination of Codes, the Divisional Code Authority had decided to cite him for Code violation.

Chapter VI - Heel and Sole Division.

Article III, Sections 4 and 5 set forth price filing provisions for this Division, and included a five day waiting period clause before prices could become effective.

This Division had a varied experience with its price filing provisions. For a number of months after the approval of the Code, the

operation of the system worked satisfactorily, and filed prices were generally maintained.

The first real break-down came at the time of a public hearing on September 6, 1934, the subject of which hearing was an application for exemption from the price filing provisions of the Code by one of the smaller companies. The request was primarily based on the argument that this particular company had supplied a local market and at lower prices than the national manufacturers before the Code, but that since the open price filing system had become effective, all prices were the same, and consequently its customers preferred to buy their requirements from national manufacturers whose product had greater public acceptance.

At this hearing, it was brought out that one of the larger companies had prior to the Code, ignored the field in which the applicant had operated, but since the Code became effective with prices broadcast throughout the Trade, felt it was impossible to ignore that market.

Shortly after this meeting, a price war broke out in the Division, as the result of two of the larger companies having decided differences of opinion on what was a proper price differential between the so-called "wood-insert heels" and the common "washer-insert heels." This controversy carried the whole price structure in the Industry down with it, and caused much hard feeling.

The differences of the two principals was finally adjusted and prices in part regained their former levels, except that the natural differentials between the various lines of products had been destroyed and the members of the Industry were left in a belligerent frame of mind.

At a meeting of the Heel and Sole Divisional Code Authority on December 22, 1934, it was held that it was practically impossible to effectuate open price filing despite the aggressive efforts on the part of the Code Authority to do so. Most members found it impossible to secure written evidence of violation which would adequately support a court case. Others with evidence at hand, unwilling to file a formal complaint against a competitor selling to mutual customers for fear the violator would inform the customer, and consequently they would lose the customer's good will and business.

"Chiseling" became prevalent in the Division. Prive levels were unsatisfactory, and from the cost recovery viewpoint the members lost faith in each other, so that finally the Division decided to abandon their price filing system, which had failed to the purpose for which it was designed, that is, among other things to remove a dangerous weapon from the hands of the "chiseling buyer", and induce fair competition.

An application for a stay from the price filing provisions followed this decision, and was approved in Administrative Order #156-64, dated February 1, 1935, with the understanding that the stay would be effective until such time as the members of the Heel and Sole Division could adjust themselves to a more effective application of the price filing provisions.

No further administrative action was taken prior to May 27, 1935, although it became more apparent as time went on that with the staying of the price filing provisions interest in the Code had ceased.

Chapter VII - Mechanical Rubber Goods Division.

Article III, Section 3 and Article IX, Section 1, constituted the open price filing system for this Division.

These Sections provided for open price filing with a ten day waiting period before price changes could become effective, on all standard goods and goods made under recognized standard specifications.

As to the operation of the open price filing system, the Mechanical Rubber Goods Divisional Code Authority as well as the members of the Division took a keen and active interest in it, especially as it related to the maintenance of filed prices. In fact, in their endeavor to stabilize prices, they went so far that the matter was called to their attention as going beyond the bounds of powers granted them under the Code.

Subsequently, their actions were made the subject of charges against them by the National Recovery Administration and the Federal Trade Commission.

The specific charges made against the members of the Mechanical Rubber Goods Divisional Code Authority by the National Recovery Administration resulted from the uniformity of prices and bids for fire hose by members of the Division to a number of governmental agencies.

Five formal charges were made:

1. That the respondents agreed among themselves to disregard Executive Order 6767 which permitted bids up to 15% below filed prices when competing for government purchases.

2. That the respondents induced other members of the Division to do likewise.

3. That they boycotted or attempted to boycott non-members of the Division who proposed to sell products of the Industry at prices below those filed by members of the Mechanical Rubber Goods Division.

4. That they used, or attempted to use the powers granted them as a Divisional Code Authority in the furtherance of a conspiracy in restraint of trade.

5. That they neglected their duties and obstructed proper administration of the Code.

Hearings on the above mentioned charges were held from April 16th to 18th, 1935, inclusive, in Washington, D. C. by the Director of Code Administration. The findings resulting from these hearings were:

"That the evidence discloses a participation by respondents, both as an individual code authority and in conjunction with the Rubber Manufacturers Association, Inc., and the Code Authority for the Rubber Manufacturing Industry, in an active, and for a time, a successful attempt to obtain concerted action among members of the Division particularly those manufacturing fire hose, to disregard the provisions of Executive Order 6767; active and effective efforts to prevent sales by any member of the Fire Hose sub-division to jobbers who had bid on a municipal purchase at less than manufacturers' field prices; an improper and unauthorized use of the provisions of the Code concerning reclassification of customers; and a publicly avowed disregard of an administrative disapproval of that portion of a submitted 'Uniform Terms of Sale' relating to calender quarterly price revisions." (*)

Based on these findings the National Industrial Recovery Board issued Administrative Order 156-81 dated May 2, 1935, which ordered that the operation of certain provisions of the Code be stayed for the protection of consumers and competitors, and in the furtherance of the public interest.

It was ordered that:

(1) The open price filing system (Chapter VII, Article IV, Section 1) be stayed to the extent that a waiting period was provided for between the time of filing revised price schedules and revised price lists, and the effective date thereof, until an order was issued approving an amendment of said Section in conformity with N.R.A. policy;

(2) The provision which purported to give the Divisional Code Authority final authority to reclassify customers (Chapter VII, Article III, Section 1), should be stayed until an order was issued approving an amendment of said Section, in conformity with N.R.A. policy;

(3) The "Uniform Terms of Sale" established by virtue of Chapter VII, Article V, Section 1, be stayed until such time as the Divisional Code Authority should have clearly and unequivocally directed members of the Division to abide by only such terms as had received specific Administrative approval and the National Industrial Recovery Board shall have issued an order terminating such stay.

(4) All the provisions dealing with marketing Standards (Article III) and Selling Schedules (Article IV) be stayed until the Divisional Code Authority should have clearly and unequivocally directed members of the Division to omit mention, either directly or indirectly, of Executive Order 6767, in their respective filed price schedules and price lists, and the National Industrial Recovery Board shall have issued an order terminating such stay.

(5) Pending further investigation, the question of removal of the respondents from office, or their disqualification from further service with the Divisional Code Authority, as might be the case, should be held in abeyance.

The respondents complied with the requirements of paragraphs

(*) Report of Director, Code Administration Volume I. Administrative Order 156-81, dated May 2, 1935.

3 and 4 to the satisfaction of the Administration and the stay previously ordered was terminated by Administrative Order 136-88 on May 18, 1935.

However, the Divisional Code Authority and members of the Division took exception to paragraphs 1 and 2 claiming discrimination and lack of due process. They denied all charges against them and appealed through their counsel for another hearing before the National Industrial Recovery Board.

This request for a further hearing in the matter was granted and a date finally set for early in June.

In the interim the Supreme Court decision on May 27, 1935, was issued, and the hearing was abandoned and no further action taken.

As a matter of information the Industry resented the action of the Administration in this instance, and planned that if the final decision of the National Industrial Recovery Board was unfavorable to them that they would take the matter to the courts.

With reference to the charges brought by the Federal Trade Commission the Industry decided not to contest the charges, but agreed to a "cease and desist order" at the same time protesting their innocence of any wrong doing.

Chapter IX - Rubber Sundries Division.

Article III, Sections 1 and 2 set forth the price filing provisions for this Industry Group, and were limited to the Stationers' Rubber Goods Division.

The system had no unusual features, but provided for the filing of complete schedules of its prices, discounts and terms of sale. It further provided for a ten day waiting period before price changes could become effective.

This system, generally speaking, worked very well and presented only a few administrative problems. The one which gave the Industry the greatest concern was presented by the so-called distributing manufacturers, who strictly speaking were not manufacturers at all. These distributors not being members of the Code were not obliged to file prices or live up to the trade practices, and therefore were at liberty to quote prices and terms not in accordance with the filed prices of their supplier manufacturers, and in some instances caused what the members of the Division considered unfair competition.

(b) Rubber Tire Manufacturing Industry - Code #174.

This Code contained a dual provision for filing of prices; in the first instance, list prices were to be filed with the Code Authority; in the second, all prices, discounts, terms and conditions of sale were to be filed with the Administrator.

The prices to be filed with the Code Authority were the suggested resale lists applicable to consumers, preferred wholesale list

applicable to commercial accounts and state lists applicable to governmental agencies. These lists were issued by manufacturers for dealer guidance in establishing retail prices, and in the case of the consumers list as a basis from which trade discounts were figures. The lists issued by most manufacturers were identical and some few manufacturers did not even consider it necessary to issue such lists.

Retailers or distributors were not bound by the prices so published and the list price was rarely the selling price and therefore did not even represent actual retail price levels.

Nothing whatever was gained by such price filing except that members were thereby advised of any general change in suggested retail prices made by a competitor. They could in this way learn nothing as to changes he might make in trade discounts to dealers or distributors. The provisions were aptly cited as a partial and inadequate attempt at publicity of prices.

The provision for filing of all prices, discounts, terms, and conditions of sale with the Administrator was intended to serve a two-fold purpose.

First, the Deputy issued very complete instructions to Industry members as to the form in which data was to be submitted in a series of eight letters or questionnaires. Answers to these questionnaires provided the most complete fund of information every assembled as to types and brands of product, prices and marketing conditions in the Tire Industry. This information served as a basis for the classification of tires and tubes and the determination of lowest reasonable costs promulgated to the Retail Tire Trade later in the Emergency regulations.

Second, the provisions were intended to provide stop-gap stabilization of prices pending action by the Industry on a complete open price filing system and a plan of market stabilization based upon cost control. Prices filed with the Administrator could not be lowered except after a ten day waiting period. This proposal was submitted to the Industry by the Administration at an Industry meeting on December 19, 1934, and proved a considerable factor in securing Industry's consent to the Code on that date.

As to this latter purpose, the provision proved unworkable and ineffective. This is evidenced by the fact that promptly after the approval of their Code, the Tire Industry became involved in a price war so severe as to necessitate intervention by the Administration who halted the price cutting by a truce agreed to on March 30, 1934, later approved by the President's Executive Order No. 6684, issued April 19, 1934.

Open Price Filing - Distributing Code

(a) Retail Rubber Tire and Battery Trade - Code #410

The experience of the Trade with the open price filing pro-

visions was very limited for reasons as stated below.

Article VI, Sections 1, 2, and 3 related to the open price filing system for this Code provided for:

(1) Every member should file with the Code Authority or its duly constituted agency, a schedule of such members' retail and commercial prices, discounts, terms, and conditions of sale (including trade-in allowances, if any) for any product or service of the trade or any combination thereof.

(2) Thereafter no member was to sell or offer for sale any product or service of the trade or any combination thereof below the price stated in such filed schedules, without first giving a three (3) days notice to that effect. No advance notice was required if the filed price was to be raised.

(3) Every member was required to post and keep posted conspicuously in his establishment or establishments a copy of his prevailing schedule of filed retail prices.

The above mentioned provisions did not become effective with the approval of the Code on May 1, 1934, for the reason that the Trade had been engaged in a price war and the Administrator immediately after such approval, on May 3, 1934, declared an emergency to exist in the Trade and determined floor level prices below which no member of the Trade might sell. This action was taken in accordance with the emergency provisions of Article VI, Section 4.

After the expiration of the emergency on October 1, 1934, an attempt was made by some of the local trade associations to establish price filing. This price filing for all practical purposes was on a voluntary basis because of the ineffective administration of the Code for reasons cited elsewhere in this report.

Some beneficial results were obtained by such price filing, as an aid to stabilizing prices in certain local territories. The record is very meager as to specific information in this respect.

Attitude of The Industry on Open Price Filing

At the price filing hearings conducted by the National Recovery Administration on January 9, 1934, the Chairman of the Code Authorities for the two Manufacturing Codes, Mr. A. L. Viles, expressed himself on behalf of the Industry as follows:

> "Some divisions of the Rubber Industry have a price filing system with a waiting period. Others have no price filing system at all. The divisions which desire to retain such a system believe that an open price filing system coupled with a cost recovery provision make it possible to keep in the open all the facts necessary for doing business on an economic basis with decent wages, decent costs, decent competition, and decent profits. They are convinced that a price

filing system tends to dispel salesmen's rumors and misrepresentation cases regarding prices made by chiseling buyers, and thus eliminates destructive price cutting, because a manufacturer is less likely to engage in this practice of the facts are to be brought into the open, and knows that his competitors will have an opportunity to beat him. The price filing system also protects honest consumers by preventing dishonest ones, through misrepresentation from buying on more advantageous terms than the honest ones can obtain.

"The history of the Rubber Manufacturing Industry in recent years demonstrates that the great danger from it lies not in monopolistic tendencies of price gouging, but in cut-throat competition and demoralization that have resulted from an excess of manufacturing capacity, and have threatened the very existence of the Industry. Out of the eight years ending in 1933, the combined statements of the companies that accounted for 93 of the total output of all rubber products, including tires, showed a net profit in only three years, and for the eight year period showed a net less of about $40,000,000. A continuation of this condition would necessarily result in a reduction in number of people employed in the Industry and a decrease in their wages and in a decline in the general economic welfare of the country.

"We repeat our conviction that effective cost recovery and price filing provisions should be permissive in the code of these groups who sincerely desire them unless good reason can be shown in specific cases why they are harmful to the public interest. Conditions in the Rubber Manufacturing Industry justify the inclusion of such provisions in the Code of those divisions which desire them."

The attitude of the Industry as a whole toward the various price filing systems incorporated in its Code, after a years' experience presented no united front for or against.

The attitude varied for each Industry group, and to a great extent depended upon how successfully such a system had operated in each particular case and to what extent it had been a factor in stabilizing prices.

It can be safely said however, that the favorable reaction of the Industry outweighed the unfavorable reactions.

One of the real weaknesses in the operation of the open price filing provisions was the lack of quick and effective enforcement, especially in the earlier stages of the Industry under the Codes.

3. THE EMERGENCY IN THE RETAIL TIRE TRADE

1. TIRE DISTRIBUTION AND PRICE STRUCTURE

As the effect of conditions which had been converging in the Tire Industry for years prior to 1934, we find a distribution picture and price structure in the retail tire trade which was extremely involved and difficult to understand or explain, even by the principals themselves.

2. TYPES OF DISTRIBUTION

Tires were passing from manufacturer to user through at least 8 chief channels of distribution, this in addition to tires sold automobile manufacturers as new car equipment, and tires sold direct by the manufacturer to Governmental departments and other large individual users.

Retailers included factory-owned stores, pseudo-jobbers, warehouse dealers, catalog houses, mail-order house retail stores, auto supply chain stores and gasoline stations in addition to the individual independent dealer themselves. Each outlet had its own buying arrangement and cost, gave various degrees of service at varying rates of overhead expenses, and sought its share of the business with its own individual appeal to buying motives.

3. RANGE OF QUALITIES OFFERED

As has been previously noted, the situation was further involved by the range of quality lines introduced both to serve various pocketbooks and as competitive price weapons. At various price levels, there were offered the standard first grade tire, first intermediate, standard second, second intermediate, and standard thrid grades.

4. RETAIL PRICES

The price structure itself used by manufacturers and their intermediary outlets in pricing to the consumer and to dealers was involved. First, there was a Consumers list which, in the language of the Tire Manufacturers Code, (*) was defined as "the list from which dealer and/or jobber discounts shall be applicable and (which) shall apply to the sale of tires and/or tubes to owners of less than five vehicles." In practice the first named purpose was the one chiefly served. Most manufacturers also issued list prices intended to be applicable to commercial owners of five or more vehicles, including government accounts. These were 10 per cent or 15 per cent below consumers lists and were descriptively referred to as Preferred Wholesale lists.

(*) Printed Code No. 174, Page 548, Article VI, Section 13.

Twenty-two of the thirty-seven manufacturers were using the same Consumers List when the Code went into effect. Some of the smaller manufacturers, recognizing the necessities of competition, used lower Consumers lists, basing them approximately on mail-order catalog prices.

5. DEALER PRICES

Net Billing prices were the maximum prices at which tires were invoiced to dealer accounts. They represented discounts of 25 per cent from Consumers List on first line, 22½ per cent on second and third line tires. Subject only to discount of around 2 per cent for cash, they were the net cost price to the very small dealer whose annual volume of purchases would be less than $1000.

6. DEALER DISCOUNTS

Every manufacturer had an individual program as to prices extended to other than the smallest dealers, the scale being lowered in approximate ratio to the dealer's volume of purchases. Leading manufacturers usually granted a bonus for volume of purchases on a sliding scale, paying this annually or at shorter intervals, as earned. This bonus usually ran up to a 15 per cent discount from Net Billing prices on annual purchases of $15,000 or more. Companies not using this plan granted discounts on estimated volume of purchases as earned or anticipated, sometimes on monthly statements, sometimes on the face of the invoice. Often factors such as the size of the market, type of competition, or bargaining ability of the dealer seemed to determine discounts.

One effect of such plans is to place such a premium, in purchasing price, upon volume of purchases that it becomes profitable for the dealer to cut prices upon at least some sales to get volume which will lower costs on all his purchases.

In addition to trade discounts, there appeared discounts for cash and anticipation of payment date, transportation allowances, advertising allowances, allowances for purchasing in carload or container quantities, and allowances or fees, or discounts, for acting as warehouse or shipping-point dealer. Here also should be mentioned the practice of "cut-backs" or special discounts credited on goods sold at low prices and guaranteed margins on sales made far below the dealers cost in price wars.

7. JOBBER PRICES

While similar discounts and price concessions were made to jobbers, there were no definite differentials existing between dealer and jobber prices. Some few manufacturers catered to the true jobbing trade and protected that trade with established differential discounts, averaging 12 per cent below prices quoted dealers on their own lines. However, it is a matter of record that the maximum prices quoted dealer accounts on some lines equalled the best price quoted any jobbing account.

8. PRIVATE BRAND PRICES

The foregoing discussion refers primarily to "company" brands, that is, tires made under the manufacturers' own name or a name owned by him; in the industry the term "Private Brand" is used to designate brands owned by, and usually sold by, parties other than the manufacturer. The number of private brands being manufactured were approximately 140 against about 225 company brands, including special brands. This applies to casings only, there were nearly 400 private brands of inner tubes.

Eighty-three accounts buying private brands were known. Forty-three were classified as jobbers, 20 as mail-order and chain stores, 5 as distributors (essentially jobbers), and four as dealers. Ten were unclassified. Most private brands were purchased at unit prices but some cases of cost-plus arrangements were reported. The big accounts such as the two largest mail-order concerns are known to be on a cost-plus basis.

Prices paid by private brand distributors averaged (unweighted) 54 per cent below consumers list, about the same as the unweighted average of jobbers prices, though the lowest price paid was considerably lower than the best jobbers price.

The price structure in the tire field, then reduced to figures is as follows:

The Consumers list prices established by manufacturers, on a popular small size tire (28 x 4.75-19) were:

Standard first quality	$8.40
First intermediate	7.55
Standard second	6.70
Second intermediate	6.05
Standard third	5.15

The net dealer price charged the small dealer (net billing) was 25 per cent below Consumers list.

The net dealer prices charged dealers who purchased from $5000 to $6500 worth of tires per year, on 27 brands for which they could be computed averaged (unweighted) 38.1 per cent below consumers list, and showed the following range:

10	brands	under 35%	discount
8	"	35% to 40%	"
7	"	40% to 45%	"
2	"	over 45%	"

An analysis of the lowest prices quoted to any type of dealer on these same 27 brands shows:

8	brands	35% to 40%	discount
7	"	40% to 45%	"
6	"	45% to 50%	"
2	"	50% to 55%	"
1	"	55% to 60%	"
1	"	over 60%	"

It is not necessary to complicate the picture further by listing discounts or spreads applying to jobbers or private brand

buyers. The foregoing data on the price structure of manufacturers mean that competitive dealers were buying at discounts from the suggested Consumers List of from 25 per cent to as high as 60.4 per cent. The corresponding mark-up which would be secured by dealers, were the suggested consumer lists "maintained", would range from 33-1/3 per cent to 153 per cent.

With five clearly defined price-quality classifications and twice as many scattered and individual instances, with 365 brand names, variously designated as Super, Deluxe, Heavy Service, Special Construction, Custom built, etc., apparently without discrimination as to first, second, or third quality, and with the range of retailers buying prices detailed above, it is doubtful if a more perfect setting for continued instability of price-levels could have been devised.

9. PRICE WARS IN THE INDUSTRY AND TRADE

It is difficult to say when price wars actually began in the tire industry. Perhaps their first appearance was in the original equipment field - sales to automobile manufacturers. In this instance, of course, the competition was confined to manufacturers and the retail field was unaffected. The result was to narrow down comeptition for this business to the four largest companies and the entire elimination of profit from the business secured, other than the absorption of plant overhead cost.

When the renewal tire market began to contract, after the season of 1928, this form of competition made its appearance there. At first it was confined to sales to commercial accounts and was largely under cover insofar as the general public was concerned. The general consumer business, however, presented too vulnerable a situation, and it was not long before prices were thoroughly demoralized. The various phases of these price-cutting contests have been described above.

10. INDUSTRY EFFORTS AT STABILIZATION

Within itself, the Industry made various attempts to stay the process it had itself put in motion. In 1926 the Rubber Institute was formed, General Lincoln C. Andrews named as Director (unofficially termed the Czar of the Industry), and a system of open price-filing instituted as a means of controlling wilful and needless competition. The Institute first concerned itself primarily with original equipment sales, as the then sorest point of the situation. The effort was shortlived and after its first serious brush with one of the larger units which was determined to increase it's sales with secretly lower prices as the instrument, the plan of the Institute went into the discard.

Continued attempts were made by committees of sales executives, representing large manufacturers, small manufacturers and private brand marketers to reach a common ground and understanding, but as fast as made, promises were broken and aggreements dissolved. The Industry's feeling that a solution of its price dissention and an end to price cutting must be brought about, is evidenced by the proposals

made to the Administration in the formulation of both the Tire Manufacturers Code and the Retail Tire Code. These were proposals for the allocation of production, for mandatory methods of costing and cost recovery - for the fixing of prices at which manufacturers would sell, and at which retail outlets of every type would be permitted to sell.

11. THE SITUATION AFTER JANUARY 1, 1934

The Tire Manufacturers Code was approved on December 21, 1933, and represented a compromise by the Administration with the problem of price control in the Industry. Some highly restrictive provisions relating to isolated trade practices were incorporated, a partial and ineffective system of open price filing was advanced, while the entire subject of market stabilization was left untouched, the Code Authority being instructed to devise a plan and submit a report within 60 days. This was an almost impossible assignment, for the Industry had evidenced no ability to agree upon any such plan in the foregoing six months, and was no nearer agreement then than at any time previously. (*)

(*) Ref. Code History, Rubber Tire Manufacturing Industry, Pages 62,63.

Following the approval of the Code for the tire manufacturers, a price war started early in January 1934. This outbreak was generally charged to the action of a large mail-order house offering trade-in allowances of 25 to 30 per cent for used tires exchanged on the purchase of new tires.

Complaints from small and large dealers and from manufacturers poured in on the Administration by the hundreds, and on February 2nd, N.R.A. officials convened a conference of manufacturers, private brand marketers, and representatives of dealer organizations at which an agreement was reached to discontinue this practice.

No sooner was this stopped than both large mail-order houses began to advertise cut prices on tires throughout the country. Manufacturers permitted and probably insisted that their dealers meet these prices, and rebated dealers on a part of their loss. Tires were being sold below the manufacturers cost in many instances. Typical prices, as advertised in the Perth Amboy, New Jersey, Evening News for March 12, 1934, by both Firestone and Goodyear dealers, were:

Size of Tire	Regular Price	Advertised Price	Lowest Representative Cost To Mfgr. (*)	To Dealer.(*)
28 x 4.75-19.4 ply	$ 8.65	$4.85	$ 6.67	$6.10
28 x 5.25-18	10.30	5.80	7.32	7.30
32 x 6.00-20	13.90	8.60	11.67	9.80

(*) Lowest representative cost to manufacturer as submitted by Tire Industry Code Authority, based on 20 companies and includes distribution cost; to dealer as based on discounts of 35-6 per cent from regular prices, discounts applicable to a $2500 dealer. Obviously, manufacturer costs were incorrectly reported or money is being lost on sales even at regular prices.

In such price-wars it is the policy of manufacturers to subsidize dealers through rebates or "cut-backs". Both manufacturer and dealer lose heavily, the manufacturer recapturing less than his own cost of manufacture and distribution, the dealer making, with his rebate, far less than his normal cost of doing business. As an example:

Regular price of tire	$11.65
Invoice cost to dealer	8.74
Gross Profit	2.91 - 25%
Price war price	8.16
Invoice cost to dealer	8.74
Loss	.58
Rebate - 15% or $8.74	1.31
Gross Profit	.73 - 8.9%

The above case was duplicated in every part of the country and hundreds of complaints reached the Administration accompanied by newspaper advertisements. These complaints were from large and small dealers and pointed out that such losses were depleting their resources and forcing them out of business. Immediate approval of the Retail Tire Code, and immediate approval and enforcement of cost recovery provisions in the Manufacturers Code were demanded. Many letters merely implored the Administration to put an end to the price cutting by any means available.

12. THE TRUCE DECLARED UNDER SECTION 4 (a)

It was at this point that the National Recovery Administration brought leaders in the Industry and Trade to Washington for a conference and arranged the Truce designed to stay the price war and put an end to destructive price cutting pending the approval of the Retail Tire Code.

On March 30, 1934, the representatives of the Industry agreed to a truce on price cutting for a period of 40 days. During the 40 days, the Administration promised that a Code would be approved for the Retail Tire Trade within the 40 days. The terms of the truce were:

1. A forty day truce to be instituted, beginning at 12:01 A. M. April 3, 1934. The signatories to this agreement will reconvene May 1, 1934, to consider extension of this agreement, unless a Code is already in effect.

2. The Goodyear Consumers price list as of February 9, 1934, is to be used as a base price of 100.

3. The Goodyear Preferred Wholesale list of February 9, 1934, to be used as a base for commercial prices and terms.

4. Guarantees to remain the same as at present, with the exception that Western Auto Supply Company is allowed to issue its new catalog.

5. Trade allowances to be as agreed upon in Washington conference of February 5 and 6, 1934. (This was that trade-in allowances would be made only on the purchases of first-line tires and to bring net prices not below preferred wholesale.)

6. Manufacturers are to discontinue all "cut-backs" to dealers on sales effected after March 31, 1934.

7. There shall be no free goods.

8. All cut-price comparative advertising to be discontinued as soon as possible and not later than April 1, in newspapers.

9. Sears Roebuck, Montgomery Ward, and Atlas to have on all lines a 10 per cent differential off the base prices.

10. Western Auto Supply Company of Kansas City, Missouri, to have a 12½ per cent differential off the base for all lines except the lowest line which is to have a 10 per cent differential off the base price.

11. Pep Boys of Philadelphia, Pennsylvania, are to be permitted an 18 per cent differential off the base for their single line.

12. Before any party to this agreement shall lower prices to meet competition, he shall notify Leon Henderson, Director of Research and Planning Division, N.R.A., and if the competition complained of is not adjusted within 48 hours after receipt of proper notice, all parties to the agreement shall have the right to meet this competition in that market.

Signatories to the above Truce terms included the "Big Four" manufacturers, Fisk, Lee, McClaren, and Seiberling, Sears, Ward, Atlas, Western Auto Supply, and Pep Boys.

This was the first such agreement negotiated by the Administration under Section 4(a) of the Industrial Recovery Act. It was approved by the President on April 19, 1934, the order of approval being Executive Order No. 6684-B.

In a report to the Administrator under date of May 2, 1934, the Deputy stated:

> "While the truce has been reasonably observed, evidence has continued to come in that such destructive price-cutting persists notwithstanding the truce. The conditions which precipitated the price war still exist. The truce is breaking down at the present time. It is my judgment that unless the emergency clause embodied in Article VI, Section 4 of the Code is immediately invoked, there will be a renewal of price wars in the Trade."

"Reasonable observance of the Truce", is of course a relative term. In a trade of 175,000 members, most of whom were under but slight control by signatories to the truce agreement, considerable variation from fixed standards of price and merchandising methods persisted and hundreds of letters and telegrams continued to come in. One of the large mail-order houses launched a special sale on April 12, contrary to Truce terms. They claimed plans for this promotion were all made, advertising printed, etc., and the situation explained to the other participants. No mention of the situation appears in the agreement, however, and the effect was decidedly unsettling.

In the last two weeks, and after the setting of minimum prices under the Retail Code were generally known, general violation occurred. The large companies through their stores and dealers booked a great deal of commercial account business on future orders, and commitments at less than the minimum prices would be, while large and small retail distributors advertised cut prices.

13. THE RETAIL TIRE CODE PROVISIONS

During the truce the Retail Tire Code was completed and approved on May 1, 1934. It contained the following provisions:

> "Article VI, Section 4 -
> Destructive price-cutting as set forth herein is declared an unfair method of competition and is forbidden. Whenever the Code Authority determines that an emergency exists throughout the Trade or within the Trade in any area, and that the cause thereof is destructive price-cutting such as to render ineffective or to seriously endanger the maintenance of the provisions of this Code or of

the Act, and the Code Authority certifies its conclusions based on such determinations to the Administrator, or the Administrator determines on his own initiative, that an emergency exists as herein set forth, the Administrator may thereupon declare such an emergency to exist, subject to the provisions of Article XI of this Code.

"(a) Thereupon the Administrator may cause to be determined in accordance with such rules and regulations as he may prescribe, the lowest reasonable cost of any product or service of the Trade, in any area concerning which such emergency shall have been declared to exist. Such lowest reasonable cost when determined as aforesaid, shall be announced to Members of the Trade in such manner as the Administrator shall direct.

"(b) Thereafter until the Administrator shall have declared that said emergency has ceased to exist, no Member of the Trade shall sell, or offer to sell, or otherwise dispose of any product or service of the Trade for which the lowest reasonable cost has been determined, as hereinabove set forth, at a net realized price less than the lowest reasonable cost so established.

"(c) During the period of the emergency, the determination of lowest reasonable cost may be revised from time to time at reasonable intervals or as changes in circumstances or experience may indicate.

"(d) The Administrator may at any time declare, in such fair manner as he shall determine, that the period of emergency has ended."

In addition to the provision that the Administrator might declare at any time the end of the emergency, Article XI, Section 1 of the Code read:

"Provided, however, that Section 4 of Article VI of this Code shall cease to have effect on October 1, 1934, unless prior to said date the Code Authority shall have recommended continuance thereof and the Administrator shall have approved such recommendation. In connection with any such recommendation, the Code Authority shall submit data to support the same."

The following clause from the Executive Order approving the Code is noteworthy:

"*** provided, that if prior to said effective date, the Administrator on his own initiative determines that an emergency due to destructive price cutting, as stated in

Article VI, Section 4 of said Code, exists in the Trade, the Administrator may therefore cause to be determined the lowest reasonable cost as set forth in said Section 4 of Article VI, and such determination may therefore be announced to the members of the Trade in such manner as the Administrator shall direct, but shall not become binding upon such members until the effective date of the Code; and provided further, that in connection with the existence of an emergency due to destructive price cutting and the determination of lowest reasonable cost thereunder as stated in Article VI, Section 4 of the Code, in order to eliminate unfair competition, the Administrator may establish for the period of such emergency a uniform guarantee and warranty applicable to the sale or offering for sale of any products of the trade:"

14. THE DECLARATION OF EMERGENCY

Under this provision, the Administrator on May 3, 1934, issued Administrative Order No. 410-3, the declaration of emergency in the Retail Tire Trade, to become effective simultaneously with the Code itself on May 14, 1934.

Administrative Order No. 410-3 did four distinct things.

1. It declared an emergency to exist in the Retail Tire Trade, due to destructive price cutting such as to render ineffective or seriously endanger the maintenance of the provisions of the Code.

2. It determined a classification of each and every brand of casings and inner tubes into four groups according to quality for the establishment of lowest reasonable costs, at the same time ordering that no member should change the classification of any brand, should sell any brand not classified nor should use the classification for advertising purposes in any form.

3. It established a minimum price for each grade, size, and ply of casing, and each grade and size of inner tube, below which no member of the trade could sell any casings or tubes during the period of the emergency.

4. It provided that during the period of the emergency no member of the trade should offer, use, or extend any guarantee or warranty applicable to the sale of tires or tubes except against defects in material and workmanship for a period of 90 days from date of sale.

15. THE EXISTENCE OF THE EMERGENCY

With the finding that an emergency actually existed there

can be no dispute. That destructive price-cutting existed is obvious from the advertised prices on tires quoted previously. The number and distribution of exactly similar complaints received by the Administration established that the condition existed throughout the trade, and the rate of mortality among dealers and small manufacturers established that the condition was destructive of establishments, of capital, and of employment.

16. THE CLASSIFICATION OF TIRES AND TUBES

In his report to the Administrator accompanying the Emergency order, the Deputy stated:

> "In order to establish lowest reasonable costs, all tires and tubes must first be classified into groups. The Tire Industry Code Authority was asked to recommend a complete classification of all brands. They proposed three groups, A, B, C. The resulting classification was submitted to every manufacturer and private brand distributor, by the Code Authority. I notified these companies that any objections to the proposed classification must be filed with me not later than April 25. Twenty-three requests for reclassification were received and given due consideration. Errors and inequalities undoubtedly still exist, but every reasonable effort has been made to fairly classify all brands. There are no available standards whereby such a classification could rationally be made. For the most part it represents the opinion of the individual companies themselves.
>
> "Group A consists of what are commonly termed 'first-line tires', Group B, 'second-line tires', and Group C, 'third and fourth line tires.' Primarily, the grouping has been made on the basis of the place of any brand of tires in the present price structure. Provision must be made in the regulations for adding to or changing this classification, which is shown in Exhibits G and H." (*)

(*) This refers to the printed Emergency Regulations.

There being no standard specifications within or without the Industry, the classification of tires into Groups, A, B, and C probably very roughly distinguished actual differences in quality. It was the cause of considerable controversy between manufacturers and the Administration. Numerous revisions were made, in each case after consultation with the Tire Industry Code Authority, who effected the original classification.

17. THE LOWEST REASONABLE COSTS

The establishment of lowest reasonable cost necessitated a determination of what price levels were considered as destructive and to whom.

The most desirable method would have been to determine the lowest reasonable cost of manufacture, and to add to this the lowest reasonable cost of distribution. This method was not followed because available data on manufacturing costs were simply not adequate. From the data given previously on manufacturers discounts to maximum dealer accounts, and mass distributor private-brand accounts, it is apparent that to use the costs of these outlets as the lowest cost channels of distribution would establish a minimum retail price floor so low as to offer no protection to the independent dealer.

The lowest reasonable cost apparently was determined to be that level which would cover enough of the costs of the small independent dealer to allow him to survive.

In his report to the Administrator, the Deputy stated:

> "The following classification of some 78,000 dealer accounts was furnished by manufacturers. You will note that approximately 90 per cent of all tire dealers purchased less than $2500 worth of tires annually. * *
>
> "It is recommended, therefore, that the lowest reasonable cost for dealers purchasing $2500 worth of tires annually be established, since they are more nearly representative of the Trade.
>
> "An examination of manufacturers' discounts to dealers for passenger car casings disclose that a $2500 dealer receives trade discounts of 35 per cent and 6 per cent from the Consumers' list price.* * * * It is recommended that the invoice cost to dealers be established on Group A tires by applying the discounts of 35 per cent and 6 per cent to the Consumer' list. * * * * * *To the invoice cost established for Group A tires it is proposed to add 10 per cent as a partial allowance to cover store wages. Actually, store wages average from 15 per cent to 35 per cent in a retail tire store, expressed as a percentage of cost of merchandise. The lowest reasonable cost on Groups B and C has been established somewhat arbitrarily with regard to relative cost between the two groups, based on data submitted by manufacturers. A similar method has been used in determining the lowest reasonable cost for truck and bus tires and tubes.
>
> "The above method results in the following cost floors in terms of percentage of Group A current

list prices of twenty-two manufacturers using identical lists:

Cost Floors - per cent Group A List Price Tires and Tubes

	Group A	Group B	Group C
Passenger car casings	77½%	70%	60%
Passenger tubes	72%	60%	54%
Truck casings and Farm Tractor Tires	79%	71%	
Truck tubes	72%	60%	
Solid Tires (Western States 5% higher)	75%		

(The Group A or first line list price equalling 100)

"The following example shows the relationship of the cost floors to prevailing lists, on one tire:

38 x 4.75 - 19 4 - Ply Tire

	List Price	Cost Floor	Lowest Reasonable Cost	Lowest Representative Cost (*) (Rubber @ 12½¢)
Group A	$ 8.65	77½%	$ 6.70	$6.67
Group B	6.90	70	6.05	5.94
Group C	5.30	60	5.30	5.26

(*) Submitted by the Tire Industry Code Authority

It is apparent that differentials customarily established in list price between first, second, and third-line tires by manufacturers themselves, were not followed in the minimum prices established.

When the minimum prices actually became the going prices, the effect of this move was to place dealers in a far better position as to margins on the lower quality tires. The dealer made more money selling the cheaper article.

18. THE GUARANTEE CLAUSE AND CONTROVERSY

The subject of warranties on tires had been a moot point in the Industry and trade for years, and since the first start to formulate codes, the Industry had endeavored to reach an agreement among themselves on a uniform warranty for tires and tubes. No agreement has been reached.

There were two types of warranties in use; the one known as

the Standard Warranty was in use by most manufacturers, probably 70 per cent of all tires being sold under it; it read:

> "Every pneumatic tire of our manufacture bearing our name and serial number is warranted by us against defects in material and workmenship during the life of the tire to the extent that if any tire fails because of such defect we will either repair the tire or make a reasonable allowance on the purchase of a new tire."

The second type of warranty was used by about 12 small manufacturers, and several private brand distributors. It was known as a time warranty. The tire was guaranteed for a period of time, six to twenty-four months and against all road hazards, regardless of failure through defects in material and workmanship. Adjustments were made on a proportionate basis, for example, if a tire guaranteed for 12 months, is replaced at the end of 8 months, the purchaser pays eight-twelfths of the current retail price and receives a new tire.

Both types of warranty were open to criticism, the first because it facilitated policy adjustments made to satisfy a customer having no real claim, the second because it is obviously unsound to guarantee a tire against all road hazards. The so-called Standard Warranty was staunchly supported by the Big Four Manufacturers, with their national distribution and trained adjusters throughout all markets, as the fairest and most economical. The small manufacturers and distributors using the time warranty, claimed it was most practical from their point of view. They had no trained representatives to handle adjustment claims in the field and the warranty provided a fair and easily understood basis for handling all claims.

In his report to the Administrator, submitting the Emergency Order, the Deputy said:

> "The Administration ought not to be put in the position of having to determine a uniform warranty for the tire industry and for this trade. It is possible, however, that the warranty may constitute a device for unfair competition during the emergency unless limited as to time."

Just what pressure or what logic overruled the first expressed conviction of the Deputy can only be conjectured. In a trade where retailers' buying discounts varied from 35 to 60 per cent and where price wars had carried quotations to 10, 12, and 14 "tens" off list prices, the competitive pressure of various guarantees appears somewhat inconsequential. Undoubtedly, however, if it was foreseen that minimum prices to be established would become the exact sales price for all tires, the competitive advantage of a liberal guarantee would be enhanced just as would the readier consumer acceptance acquired by years of heavy advertising.

The emergency order, as issued contained the provision:

"During the period of the emergency no member of the trade shall*****use or extend any guarantee or warranty applicable to the sale of such tires or tubes except against defects in material and workmanship for a period of ninety (90) days from date of sale."

Criticism was not long delayed. A storm of protests greeted the announcement from manufacturers, their dealers, and the private brand distributors, using the time warranty. Eight manufacturers, Armstrong, Cooper, Corduroy, Dayton, Gates, Giant, Lee and Norwalk immediately protested, stating that the time warranty was an important feature of their sales program, and that sufficient time had not been given to permit a readjustment of their policies so as to comply with the provisions of the Order. Other protests from private-brand distributors and independent dealers were received in considerable number.

The Emergency Order became effective of May 14, and on May 16, the Administration issued Administrative Order No. 410-4, staying the 90 day warranty clause for a period of 30 days from May 14. A public hearing on the issue was set for June 4.

During the 30 day stay, the Administration was subjected to a barrage of propaganda, much of it inspired by manufacturers and distributors who favored one or the other form of guarantee. The issue became sharply drawn, the large manufacturers and a few small one favoring the restriction on guarantees to 90 days, most small manufacturers and most private-brand distributors favoring the time warranty. The points of advantage to members of the Industry and Trade in either program were accentuated, and the importance of guarantees as competitive devices was over-stressed in the mind of each participant in the agreement.

At the public hearing, one representative of a large manufacturer advocated the 90 day warranty, another filed a brief in favor of it, several independent dealers, all but one of them members of the Retail Tire Code Authority, spoke in favor of the 90 day restriction. Small manufacturers were unanimously against it, stating that it would place them at a distinct disadvantage in competing with large manufacturers of nationally advertised tires. The smaller manufacturers and the principal private brand distributors using a time warranty were in favor of a uniform warranty for the Industry, with a definite time limitation. Two large private brand distributors were opposed in principle to any form of limitation on warranties.(*)

There was still no possibility of agreement in the Industry or Trade on a uniform warranty. The Administration was by this time convinced that the 90 day restriction would work an unjust hardship on companies using time warranties. On June 14, the Administrator,

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(*) Transcript of Public Hearing June 4, 1934, Retail Tire Trade

in Order No. 410-7 stayed the 90 day warranty clause indefinitely, subject to his further orders.

The net effect of the attempt to regulate the use of different warranties was to accentuate the feeling in the Industry over this question and the competitive value of the time warranty. Immediately after the Big Four Manufacturers learned that those using a time warranty would be permitted to continue, they each adopted this type of warranty and announced the fact of their so doing in newspaper advertising throughout the country

Yet the head executives of two of these companies have in public statements within the past two months (December, 1935) decried the use of such warranties as an expense to the Industry and an unsound practice forced upon it by private brand distributors. Some distributors of private brand tires increased their time warranty to as much as two years on first line tires.

The cost of time warranties to the manufacturer using them was clearly shown as negligible, in comparison with trade and other discounts freely and frequently extended in price wars. The cost of this form of warranty is clearly less than the cost of competitive advertising carried on by the larger companies. Yet the attempt at regulation and the controversy ensuing had apparently so enhanced the importance of such warranties in the minds of the Industry that it was felt to be a competitive weapon none could afford to do without. Attempted regulation had left the situation worse that it found it.

19. EFFECT OF EMERGENCY PROVISIONS ON CURRENT PRICES

To determine the effect of the emergency provisions on current price levels, we must first know what price levels were, prior to the emergency period. To determine the retail price level of tires at any one time or place is an impossibility; the variety of quality lines, the prevalence of elastic trade-in and change-over allowances and other factors thoroughly becloud the issue.

The following quotation from an advertisement published by Sears-Roebuck and Company on May 9, 1934, is in point:

> "You save one-third on All-State Crusaders at these prices, - 3 days only, May 10, May 11, May 12, inclusive. The price on All-State Crusaders will advance about one-third on May 14.
>
> "And remember Sears Famous All-State Tires will be drastically reduced on May 14."

All-State Crusaders are Sears' third quality tire. All-State is their first quality. On the effective date of the Emergency Order, they priced both lines at the minimum or floor level price. This meant an increase in the going price of their

third line, a "drastic" reduction in the going price of their first line tires.

Montgomery Ward and Company broadcast the following newspaper advertisement throughout the county:

> "The N.R.A., through the Retail Tire Code, effective Monday, May fourteenth, is requiring approximately twenty per cent price increase on Ward's Rambler tires. We would prefer to continue the low prices made possible by our economical method of selling tires. We regret that we cannot do so after the N.R.A. order fixing these prices becomes effective next Monday."

In this case also, Wards' Rambler Tires are their third line. While floor prices meant some increases in the price quoted on that line, they promptly reduced prices on first and second line tires to the minimum allowable under the Emergency order.

Another chain store, The Gamble-Skogmo Company, operating several hundred owned and agency stores in the Northwest, advertised that the Emergency Order required an advance in the price at which they were selling tires. In this case also, investigation showed that prices on third line tires only were so affected.

Here it should be noted, that lowest reasonable cost established on first and second line tires was above, while on third line tires it was below the lowest representative cost of manufacturers (including distribution costs) furnished by the Tire Industry Code Authority. If, then, lowest reasonable cost or floor level prices represented advances of twenty per cent or one-third over prices at which private brand distributors were selling third line tires, it is apparent that third-line tires were being used as a competitive weapon and were being sold at less than cost, by those distributors. This must be true, even after making due allowance for more economical distribution methods.

The fact is that within two weeks after the effective date of the Emergency Order, the two large mail-order and chain store houses had reduced their store prices to the floor-level throughout the country. The Big Four tire manufacturers had met these prices wherever they had stores or controlled distribution, and were urging independent dealers to meet them and the minimum price had become the going price, almost universally.

By July 1st, the large manufacturers were allowing their smallest dealers rebates or "cut-backs" on sales made at floor-level prices. Prices had not only fallen below the general level in effect on May 14, but, insofar as sales to the individual consumer were concerned, were nearly as low as they had been during the price wars prior to the Truce of March 30. These facts were brought out in the public hearing held on August 3, 1934.

The sale of first line tires still exceeds in volume the sale of second and third line. Thus, although there were scattering instances of actual increase in prices a t which third-line tires had been offered, the general trend of tire price levels was downward, following the imposition of minimum prices. This is further evidenced by the general lengthening of dealer discounts as filed with the Administration during this period.

20. EFFECT OF ORDERS NO. X-48 AND NO. 6767

As the Retail Tire Trade, by definition, covered sales to the ultimate consumer and not for purposes of re-sale, the Code and the Emergency Order provisions applied to sales made to the Federal Government and its departments. Thus the issuance of Administrative Order No. X-48 on June 12, 1934, brought about considerable uncertainty as to the status of sales to governmental agencies under the emergency minimum prices.

> This Order provided, in part, that:
>
> "such members notwithstanding such prohibitions contained in such Codes may: (a) quote prices and terms of sale to governmental agencies as favorable as those permitted to be quoted to any commercial buyer for like quantities; and
>
> "****that nothing in this Order contained shall operate to permit deviation from or abandonment of open price and cost protection provisions now or hereafter contained in any such code.*****"

Prompt protest from tire manufacturers and distributors followed the announcement of this ruling. On June 27, 1934, the Administrator approved Order No. 410-9, staying Order No. X-48 from any application it might have to the Emergency provisions in the Retail Tire Trade and exempting members of the trade from order No. 410-3, to the extent that they might quote or sell to governmental agencies at not less than 10 per cent below the floor level prices.

The stabilizing effect of this Order was short-lived, as Executive Order No. 6767, approved June 29, 1934, permitted persons subject to Codes of Fair Competition to quote governmental agencies up to 15 per cent below prices required to be filed by such Codes, provided they recorded such price with the filing agency as soon as bids were opened. Filed prices, going prices, and minimum prices in the Retail Tire Trade being by this time one and the same, this meant permissible price-reductions to governmental agencies up to 15 per cent below the minimum for any other consumer.

Again confusion developed and strong protest was received by the Administration. On July 16, 1934, the Administrator issued Order No. 410-11, reducing for the Retail Tire Trade the tolerance below minimum prices granted in Executive Order No. 6767 to 10 per cent.

Individual interpretations of the application of this tolerance to the minimum prices set in Emergency Order No. 410-3, resulted in much confusion and complaint. The Deputy's Office, and the Covernment Contracts Branch of the Compliance Division were flooded with complaints of violation, most of which consisted of figuing prices to the nearest penny, the nearest nickel, etc. Explanations and interpretations were issued, awards were delayed in efforts to secure strict compliance. In general, the hair-splitting nature of some of the decisions involved and the unwieldy procedure involved in enforecement contributed to a breakdown of compliance. Compliance or non-compliance was determined upon figuring the price of a tire or tube in mills and acceptance or rejection of bids by contracting officers was delayed pending formal opinions as to compliance by Deputy Administrators, Legal Advisers and the Chief of the Government Contracts Branch, cleared by the Administrator himself to the head of the Government Department involved.

21. COMPLAINTS AGAINST THE EMERGENCY REGULATIONS

Complaints against the Emergency Regulations, or in other words, complaints against the minimum price levels, divide themselves into four main categories:

(a) Complaints from small dealers,
(b) Complaints from small manufacturers,
(c) Complaints from mass distributors,
(d) Complaints on lack of enforcement.

22. SMALL DEALER COMPLAINTS

In respect to small dealers, it must be remembered that the minimum prices were established on the basis of returning to the dealer who purchased $2500 worth of tires per year, his merchandise cost plus 10 per cent to cover partially store wages. The merchandise cost to such dealers was computed as 25 and 5 per cent off of Consumers' list prices. Figures submitted to the Administration by manufacturers showed over 90 per cent of all dealers purchasing less than $2500 annually.

We have already stated that the bonus for volume or discounts in lieu of that, started with dealers buying $1000 worth of tires or more annually. The cost to all dealers buying less than $1000 was "net billing", or 25 per cent off Consumers' list.

A minimum price of 77½ per cent of list had become the going price, the resale price, for many thousands of dealers whose buying price was 75 per cent of list. This left them a margin of 2½ per cent; if they were occasionally able to take their cash discount of 2 per cent, this margin was increased to 4½ per cent, not even the 10 per cent a beneficent Adminstration had allowed for store costs.

Complaint was prompt, voluminous and sustained. Manufacturers supplying these dealers recognized the situation before the

Administration did, and took hasty steps to preserve their small dealer distributors by rebating, lengthening discounts or "cutting-back" to dealers up to 10 per cent on sales made at floor level prices.

Replies to a questionnaire circulated by the National Tire Dealers Association, submitted in evidence at the hearing on August 3, 1934, showed of 476 dealers answering, 416 in favor of a minimum price, 375 in favor of increasing the present minimum, 323 selling at the floor level prices, and 287 showing a decrease in sales volume for May and June, 1934, compared to the same period of the previous year.

23. COMPLAINTS FROM SMALL MANUFACTURERS

Complaints from small manufacturers were based on two counts; first, from those who claimed they could not recapture costs of manufacture and distribution at the going prices; second, from those who claimed they could not maintain their sales volume since with one price level for all, their normal business was diverted to manufacturers of nationally advertised and accepted products.

On June 5, 1934, 18 small manufacturers met in Washington and presented to the Administrator a unanimous petition that floor level prices be increased. They presented numerous advertisements as evidence that floor level prices were now the going price for tires, due to the action of mail order houses in immediately taking that position and of large manufacturers in meeting their price.

They presented an affidavit prepared by a committee of their own cost accountants, comparing their manufacturing and distributing costs with the floor level prices. These costs, compiled according to the Rubber Manufacturers Association formula, plus 25 per cent, considered a conservative retailing cost, were greater than the floor-level price in all cases.

They presented data on rising raw material and labor costs, showing that their production costs were rapidly increasing. The costs submitted for comparison were based upon rubber at 10⅛ cents per pound, and cotton at 11 cents. The spot rubber price was then 15 cents per pound, which would have increased these costs by around 2½ per cent.(*)

The petition stated that in order to permit their dealers to sell at going prices, they were not only sustaining capital losses, but were losing volume of sales as well. They stated that this was the situation of 18 small manufacturers, representing a total investment of approximately 100 million dollars, employing an average of approximately 25 thousand persons with annual payroll of over 25 million dollars

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(*) Ref. Brief and exhibits submitted Deputy Administrator A. L. Kress by The Small Manufacturers Committee, June 5, 1934.

and having a total of 25 thousand dealers dependent upon them for support.

In contrast to such complaints there were some smaller manufacturers who claimed that their sales volume depended upon their ability to undersell the products of large, nationally advertising competitors; that due to economies in manufacture and selling, they had always been able to do this heretofore; that, with prices fixed and the minimum price the going price for all, their own marketing advantage was annulled and that their sales were being rapidly diverted to the large concerns.

In support of this latter complaint there is strong factual evidence. Three large manufacturers and 13 small manufacturers reported to the Administration their unit sales of tires for the months of March, April, May and June of 1933 and 1934.

In the months of May and June, 1934, unit sales of the small companies declined 42 per cent from their sales in the same period of 1933.

Unit sales of the three large manufacturers declined 21 per cent for May and June, 1934, against the same period of 1933.

1934 unit sales of two of these large manufacturers who had large company-owned stores and independent dealer representation, equalled their 1933 sales. Apparently this complaint was well founded.

24. COMPLAINTS FROM PRIVATE BRAND DISTRIBUTORS

We have already seen the published complaints of two of the large private brand distributors, that the minimum prices established in the emergency order required them to increase prices on their lowest priced tires. They continued to voice this complaint throughout the emergency period.

They further complained of loss of business, due to their inability to maintain the price differential below company brand tires they had always enjoyed. They pointed out the economies in ther methods of purchasing and distribution in great detail at the public hearing on August 3, and stated they were losing sales because floor level prices prevented their passing on these economies to the consumer. At the same they they presented charts illustrating the diversion of their business to the company owned store of the large manufacturer and to the marketers of petroleum products handling better known tires.

Another complaint, hight ironical in view of their own action in respect to comliance, was the statement that they were literally forced, because of their prestige and prominence, to observe the minimum prices, while small competitors, secure in their very obscurity, undersold them with impunity.

The only faction remaining complaisant over the emergency provisions themselves were the Big Four Manufacturers. They clamored for better enforcement, it is true, and expressed the view that higher

floor level prices were desirable. But with the situation of one price for all, they were entirely content. As Mr. Edward D. Levy, President of the Fisk Rubber Corporation, stated at the hearing on August 3, "I do not accuse the Big Four of consciously seeking a condition of monopoly; I certainly would not expect them to refuse to accept it if it were thrust upon them!"

25. COMPLAINTS OF LACK OF ENFORCEMENT

While the situation as to compliance and enforcement will be further discussed later, it must be acknowledged that the situation would have been accepted in better grace by all concerned if there had been any incentive or impulsion to compliance, other than the individual conscience.

The two large mail-order houses greeted the Emergency announcement by distributing millions of "summer flier" catalogues, offering tires for sale by mail well under floor-level prices. They continued to distribute these catalogues until they issued their regular Fall and Winter Catalogue on July with even lower prices. Literally thousands of these catalogues and tear-sheets from them were sent to N.R.A. by small dealers demanding some action to induce compliance; the situation having been arranged for in some way with the high command in the Administration no action was taken.

It will be recalled that during the 40-day truce one of these concerns launched a special sale contrary to truce-terms, claiming the necessity for following plans made and using advertising arranged for before the truce. In this case they claimed the catalogues were printed prior to the announcement of minimum prices. Despite the fact that no order granting an exemption or stay of minimum prices was ever recorded, no action on this violation was taken by the Compliance Division.

With this precedent, cut rate houses throughout the country followed suit. With the extremely low prices and operating margins he faced, the "one price for all" program and open underselling and violation by the unscrupulous, the position of the independent dealer, and his supplier as well, was intolerable. He was entremely vocal and acrimonious about it.

26. THE DEMAND FOR DIFFERENTIALS IN PRICE

N. R. A.'s correspondence files are replete with letters from small manufacturers and certain chain distributors of private brand tires, insisting that at price equality with nationally advertised tires, they were losing much of their market. The pressure from such complaints finally induced the Deputy to collect the statistics on unit sales of large and small manufacturers during the period of the emergency which are mentioned above. Further, on July 12, 1934, the Deputy called an informal conference for the Industry at Washington for a discussion of this issue. At that conference Messrs. Eisbrouch of McClaren, Seiberling, Levy of Fisk, Butler of Pharis, Behoteguy of Goodrich, Mayl of Goodyear, and

Trinborn of the National Tire Dealers Association testified that small manufacturers and private brand distributors needed a differential below the price level adopted by large manufacturers. The chief dissenter from this proposal was Mr. Jackson of Firestone, who insisted that the large private brand distributors had both national advertising, prestige and distribution which should permit them to sell at price equality with his own line.

At the later public hearing held August 3, again, Mr. Ragnett, a Pharis dealer, Butler of the Pharis Company, Murphy of Corduroy, Levy of Fisk, and Prall of Montgomey Ward and Company, all testified to the need of differentials below the going price on nationally advertised tires.

In support of the figures compiled by the Deputy, Prall of Montgomery Ward and Company submitted a tabulation of an inquiry conducted by his staff, covering 2600 tire dealers and stores:

Kind of Dealer	Percentage having greater sales in June than in May, 1934
Dealers and stores handling Big Four tires	54
Dealers and stores handling tires of five medium sized manufacturers	50
Dealers and stores handling tires of 23 small manufacturers	43
Sears-Roebuck, Wester Auto, and Gamble stores	39
Montgomery Ward Stores	42

Apparently, under the emergency provisions and with price equality at the floor level price, the trend of purchasers was definitely to the products of the Big Four National Advertisers.

It will be remembered that under the terms of the Truce, agreed to March 30, 1934, differentials were designated for the tires of private brand distributors. No differentials were set in the Emergency Order, the Administration optimistically holding that such differentials as were customary would be maintained above the minimum. Furthermore, the need of a differential in price for small manufacturers had not before been requested as necessary by small manufacturers themselves, most of the discussion having centered on the necessity of differentials between private brand and company brand tires.

The Tire Manufacturing Industry itself made various and contradictory recommendations to the Administration on this issue. The Tire Industry Code Authority, at a meeting on July 11, passed a resolution recommending to the Administrator -

"that the Code Authority's idea of a proper differential between the Big Four Companies and unadvertised lines and mass distribution should be, on A, B and C tires, 10 per cent."

The Marketing Committee of the Code Authority, a more widely representative body, on July 18, recommended to the Administrator that the Industry be divided into three groups and differentials granted as follows:

	Class A Tires	Class B Tires
Group 1	No differential	No differential
Group 2	5% below Group 1	2½% below Group 1
Group 3	10% below Group 1	5% below Group 1

No differential on class C tires, inner tubes, and solid tires.
Group 1 included the Big Four, General, Kelly-Springfield, and Seiberling.
Group 2 included Big Four "subsidiary lines", Dayton, Fisk, India, Lee, McClare, Mohawk, Overman, and Pennsylvania.
Group C included all other manufacturers and private brands.

Finally, a public hearing on this issue was noticed for August 3, 1934. The hearing was conducted jointly by the Deputy Administrator and the Director of the Division of Research and Planning.

For two days prior to this hearing, the Tire Manufacturing Industry, meeting in New York, had struggled to reach some agreement and a recommendation to the Administrator covering a differential price schedule modifying the single minimum price set by Administrative Order No. 410-3. They were entirely in agreement that an increase in minimum prices was needed, but disagreed on the subject of differentials. Finally, by a vote of 14 to 11 they agreed upon the schedule submitted to the Administrator at the hearing the next day.

This schedule called for an increase of 10 per cent in the minimum, or floor-level prices; a differential of 5.25 per cent above the new floor for tires bearing the names of the Big Four (except one tire made by Firestone), all other tires subject to the same minimum price except tires sold by mail through the medium of catalogs for which a differential minimum price 10 per cent below the floor would be permitted.

At the hearing, (*) all manufacturers testifying, the Manufacturers Association, the National Tire Dealers Association, The Greater New York Tire Dealers Association, and six independent dealers urged that minimum prices be raised, testifying that at present they did not cover costs of manufacture and distribution.

(*) Ref. Transcript of Public Hearing, August 3, 1934, Retail Tire Trade.

Two manufacturers, Fisk and Carlisle, testified that minimum price fixing was not a cure for the situation, that price cutting began with the manufacturers themselves, and fair competition could only be assured by cost control.

Representatives of four private brand distributors, three chain store organizations and one manufacturer, assailed any form of price-fixing as unworkable and unenforceable, stated that it unwisely increased cost to the consumer and impaired the volume of business done, Lack of enforcement of emergency price provisions was cited and criticized by nearly every witness.

All smaller manufacturers testifying claimed they were doing business at a loss, having to increase discounts to keep alive their dealers, in turn forced to sell at the low prices set by private brand distributors and the Big Four. They all pointed to decreased volume of business and rising costs. They all stated that while their costs on rubber were rising rapidly, the large companies still had stocks of low cost rubber and were playing a freeze-out game by keeping prices down.

27. MODIFICATION OF THE EMERGENCY PRICE PROVISIONS

In their determination of the issues they faced, both on the request for increased minimum prices and for differentials in minimum prices, the Administration was guided and influenced by much information secured from other sources than the testimony at the public hearing, and written representations of members of the Trade and Industry. Much data was secured on stocks of crude rubber in the country, the amounts held by tire manufacturers and the actual credit resources of manufacturers as contributory causes of their position on rubber. (*)

The large manufacturers and the large private brand distributors had many months supply of rubber at costs well below the current market. Few small manufacturers had nay considerable supply and in most cases their credit position did not permit forward buying.

For the first time accurate data on actual manufactuing costs were available from representative large and small companies. The cost date submitted by five concerns whose costs were considered very accurate by the Rubber Manufacturers' Association, showed that they were either losing money or operating on the thinnest of margins after allowing their dealers only slight margins under the floor level unit prices. A sixth manufacturer, submitted partially itemized cost figures showing comfortable margins for himself and his dealers at the floor level prices.(*)

(*) Ref. Report by C. A. Pearce, Division of Research and Planning, August 25, 1934, Pages 10, 11.

(*) Ref. Report by Division of Research and Planning on Revision of Administrative Order No. 410-3, August 25, 1934, Pages 11, 14, 17.

A secondary reason for not increasing prices was the current finished good inventories in the hands of manufacturers and dealers. This was estimated at 19,000,000 casings on July 31 (annual renewal consumption being approximately 35,000,000), and it was considered uneconomic to discourage the liquidation of these stocks by price increases.

Probably the fact that an increase would have assessed the public with a speculative profit on stocks of crude rubber held by the better financed manufacturers and the current finished goods inventory position, were adequate reasons for denying the request for an increase in floor prices. The request for differential price levels fared better than that for higher price levels. There was strong evidence that the one price for all policy was rapidly diverting the business of the small manufacturers to the large companies with their well known, advertised and universally accepted lines.

Then, too, the large mail order houses, no punitive action having been taken by the Administration in respect to violation of minimum prices in the summer catalogs, had already distributed some millions of their regular Fall and Winter catalogs, listing tire prices from 12 to 29 per cent below those permitted under Administrative Order No. 410-3. This could not be sanctioned without providing differentials for the clamoring small manufacturers as well.

Administrative Order No. 410-15 was approved by the Administrator on August 22, 1934. It grouped tires and tubes into five divisions, according to brand and method of distribution, establishing differential minimum prices for each of these divisions.

The grouping, according to the Emergency Regulation in the Order, was as follows:

Division I - Tires and tubes bearing any of the following names in any form: Firestone, General, Goodrich, Goodyear, United States.

Division II - Tires and tubes bearing private brands only, sold by and/or through outlets whose principal lines of business is the marketing of petroleum products.

Division III - (1) Tires and tubes when sold by Montgomery Ward and Company, and Sears Roebuck and Company, through their retail stores.

(2) Tires and tubes bearing any of the following names in any form: Badger, Brunswick, Diamond, Federal, G and J, Gillette, Hood, Marathon, Miller, and Yale.

(3) Tires and tubes bearing any of the following names in any form: Cooper, Dayton, Dunlop, Falls, Fisk, Gates, Giant, Inland, Kelly-Springfield, Lee, McClaren, Mansfield, Master, Mohawk, Pennsylvania, Pharis, Seiberling.

Division IV- Tires and tubes not included in Divisions I, II, III, and V.

Division V - Notwithstanding Divisions I, II, III, and IV tires and tubes sold the consumer through the medium of regularly issued catalogs, when orders are received by mail or telegraph only, and delivery is made by mail, express, or freight only.

The minimum or floor-level prices established for each Division in the above grouping are shown for class A, B, and C tires and tubes. The price is shown in percentage of the Industry Consumer list prices, published February 9, 1934:

Class A (First Line) Tires and Tubes

	Former Minimum Price	Industry's Recommendation (Casings Only)	New Minimum Price	Percentage of Change from former Minimum
Division I	77.5	89.5	80.1	11
Division II	77.5	85	80.5	4
Division III	77.5	85	77.5	0
Division IV	77.5	85	74.79	- 3.5
Division V	77.5	76.5	Fall Catalog prices of Sears and Ward	-12 to -14

Class B (Second Line) Tires and Tubes

	Former Minimum Price	Industry's Recommendation	New Minimum Price	Percentage change from Former Minimum
Division I	70.	78.94	74.2	-6
Division II	70.	75.	72.1	-3
Division III	70.	75.	70.	0
Division IV	70.	75.	67.2	-4
Division V	70.	77.5	Fall Catalog prices of Sears and Ward	-14 to -18

Class C (Third and Fourth Line) Tires and Tubes

	Former Minimum Price Tires-Tubes		Industry's Recommendation Tires only	New Minimum Price Tires	Tubes	Percentage of change from Former Minimum
Division I	60	54	65.7	60	54	0
Division II	60	54	65.7	-	-	-
Division III	60	54	65.7	57	51.3	- 5
Division IV	60	54	65.7	54	48.6	-10
Division V	60	54	65.7	Fall Catalog prices of Sears and Ward		-16 to -18

Both the grouping of brands of tires into Divisions and the minimum prices set for each division were an attempt to approximate customary price relationships and understandings, which had existed in the Industry and trade previous to the emergency regulations. In the truce agreement of March 30, differentials of 10 per cent below consumers list had been allowed Atlas, Sears, and Ward, 12½ per cent to the Western Auto Supply, and 18 per cent to Pep Boys.

Whereas the Truce agreement had recognized no differential between large and small manufacturers, the new order raised the level for the largest manufacturers (Division I) 11 per cent above that for small manufacturers (Division III), and allowed a group of very small manufacturers, those doing less than .5 per cent of the Industry total, a differential 5.5 per cent below even that. This was on first line tires. On second and third line tires, the price level for the largest manufacturers was but slightly above their smaller competitors, while minimum prices for the very small companies were dropped materially.

Administrative Order No. 410-15 was noteworth as an attempt to write into law, industry agreements and price understandings. It further was an attempt to measure, in dollars and cents, such intangible factors as public acceptance, the value of advertising, distribution facilities, and methods of sale. Furthermore it sanctioned, by a ruling of the Administration, the position which had been taken by mail order houses in violation of previous orders of the same administration.

This last feature of the new emergency regulations provoked a storm of protest from small manufacturers and their distributors when they saw the mail order houses permitted prices far below those allowed to distributors who had customarily based their entire sales program on price parity with the mail order house.

Another feature of the regulations, wherein they departed entirely from Industry recommendations, caused serious controversy and breaksown of compliance. The firestone Company produced a tire known as their Century of Progress brand. This tire was vigorously advertised as first quality in every respect, the equal or superior of any other first line tire. They priced it at the exact level

maintained by Sears and Ward in their retail stores. This had been, since the emergency went into effect, floor level price, the same price as continued in the new regulations for Division III tires. In the recommendations received from the tire manufacturing industry as to establishment of differentials the Century of Progress tire was omitted. Firestone's High Speed brand was named in conjunction with the first line brands of Goodyear, Goodrich and United States. His competitors evidently felt that in view of his having no private brand or subsidiary line business, he was entitled to a lower price position on the Century of Progress line.

However, the wording and intention of the new regulations placed this tire in Division I, the minimum price allowed for it being 11 per cent above the prices permitted tires in Division III with which it had formerly been competitive. This position Mr. Firestone refused to accept, and telegraphed a request for a stay of the order to the Administration. He was not advised of the denial of this request until a month after the Order became effective.

In the meantime, Firestone continued to price their Century of Progress tire at the Division III floor level price. The three other largest companies protested this situation to the Administration, but seeing no effective action to secure compliance on the part of Firestone, met his price on their own first line tires, wherever it appeared. Thus the new emergency regulations and differential minimum price levels were almost universally disregarded, the largest and most prominent manufacturers setting the pace, the small companies and their dealers, unrelieved of the competitive pressure from above on the part of nationally advertised tires, and facing the extremely low prices permitted on tires sold by mail order, selling at what they could get.

28. BREAKDOWN OF COMLIANCE AND ENFORCEMENT

Administrative Order No. 410-3 was approved May 3, 1934, to become effective May 14, 1934. The minimum prices established by the Order were of course known to manufacturers and distributors as soon as printed copies of the Order were available, and in fact most manufacturers and large distributors were officially or unofficially advised of the price floors as soon as the Order was approved.

The first effect was a rush to book forward orders and commitments from commercial users, for future delivery ar less than the minimum price set. Both manufacturers and distributors participated in this flurry, many dealers advertised the urgency of buying "before prices were advanced by the code", and undoubtedly some business was secured on this basis

The most serious situation was the publishing and distribution of the two large mail-order houses of millions of "summer flier" catalogs offering tires at mail order sale, at less than the floor prices. These prices were good only on sales by mail, according to the catalog, but at least one of these concerns arranged to accept orders and make deliveries through a special department in their

retail stores at such prices. These concerns claimed they had received authorization from high officials in N.R.A. for this action, in view of certain out-of-pocket expense to the customer purchasing by the mail-order method. At any rate, efforts of the Deputy Administrator of the N.R.A. Field Officers to secure abatement of this violation were fruitless. The catalogs continued to be issued throughout the summer, and of the thousands of complaints received by the Compliance Division, none became the subject of action by the Compliance Council.

As these catalogs reached practically every section of the country, they brought protest both from small independent dealers and smaller chain store establishments. No explanations the Administration could make served to remove the impression that these concerns were receiving preferential treatment as to code enforcement. Not only did feeling run high, but the lack of enforcement served as a shield for any other retailer who chose to violate the emergency provisions. The two concerns mentioned then in turn reported such violations to the Administration as reasons for their losing business through their retail stores, where they claimed to be selling at the floor level price.

Thus until the promulgation of the revised emergency regulations of August 22, 1934, the principal non-compliance existing was the summer flier catalogs of mail order companies, and sporadic outbursts of cut price selling by large retailers and the smaller chain store operators. These concerns handling lesser known lines, saw their normal sales going to nationally known lines at floor level prices, and naturally resorted to their one weapon, cut-price selling. In this they could feel fairly secure, because of the lack of enforcement in the catalog situation. In the case of pressure from the Retail Tire Code Authority or N.R.A, State offices, they could terminate the advertising, sign a certificate of compliance, and nothing further was done.

Following the issuance of Order No. 410-15 on August 22, non-compliance was the rule, rather than the exception. As we have seen, the large manufacturers did not increase their prices, due to the action of the Firestone Company on their Century of Progress tire. This matter was not adjusted until September 25, when Firestone having been notified of a hearing before the Compliance Council, agreed to comply and advertised increased prices.

Dealers and distributors generally continued to sell at or about the floor-level price as it had been under Order No. 410-3, not attempting to understand or to comply with the involved differential price set-up established in the new emergency regulations in the Order of August 22. The retail tire business ordinarily has a sharp seasonal decline in volume from September 1 on, and there is no data available as to the effect of the new regulations on current price levels or volume of sales.

29. TERMINATION OF THE EMERGENCY PROVISIONS

Article XI, Section 1, of the Retail Tire Code read:

"Provided, however, that section 4 of Article VI of this code shall cease to have effect on October 1, 1934, unless prior to that date the Code Authority shall have recommended continuance thereof, and the Administrator shall have approved such recommendation. In connection with any such recommendation, the Code Authority shall submit data to support the same."

On September 28, at a conference presided over by the Deputy Administrator, the Chairman of the Retail Tire Code Authority presented a request that the Emergency provisions and minimum prices be kept in effect, that the Administration increase efforts to enforce them, and that the organization of District Control Boards proposed and launched by the Code Authority be recognized and authorized to collect funds from the trade for enforcement.

The request was supported by reprsentatives of three small manufacturers, Dayton, Pennsylvania, and Seiberling, who predicted that if the Emergency Provisions were allowed to expire, the trade would be thrown into a most destructive price war, resulting in renewed losses and mortality among the smaller establishments.

At this conference, it was evident that the Code Authority itself had few hacts at hand, either as to the prevalence of compliance or non-compliance, or as to the extent of the trade and the number of members who could be relied upon the support administration of the Code by their contributions. The manufacturers present predicted an utter demoralization of prices, were the regulations to lapse, but were vague as to who would bring about such demoralization or just what form the attack would take.

The Deputy Administrator and the Director of Research and Planning in the meantime had been informally advised by responsible officials of the Big Four Companies, that they regarded any immediate or considerable disturbance of the prevailing price level improbable.

No administrative action on the request of the Code Authority was taken and the administration permitted the emergency provisions to expire on October 1, 1934.

30. EFFECT OF EXPIRATION OF EMERGENCY ON PRICE LEVELS

Insofar as retail tire prices and prices to commercial users were concerned, there was no immediate reaction from the lapse of emergency restrictions. Shortly after October 1, the Procurement Division of the Treasury Department opened bids on a considerable purchase of tires for Federal Government departments. Several companies submitted bids materially below the minimum permitted during the expired emergency regulations. Among these was one of the three manufacturers who had protested that the return to free competition would result in ruinous price cutting. His bid was 17½ per cent below the minimum permitted prior to October 1.

As a result of this break, competitive prices to governmental

agencies fell rapidly to the lowest point in months. Price cutting seemed to be confined to that type of account, retail prices remaining fairly stationary. Retail tire sales were at a seasonal low ebb as it was, what price cutting did occur was largely in the form of trade-in allowances on used tires.

31. SUBSEQUENT PRICE TRENDS IN THE TRADE

One month after the termination of minimum price regulations, on November 1, 1934, tire manufacturers announced a slight increase in the consumer list prices of tires. The amount of increase varied with grades of tires but averaged roughly 5 per cent. This move was accompanied by a general shortening of discounts to dealers and distributors.

This move was not alone an effort to increase prices charged consumers, for the amount of increase did not reflect increased costs of materials and labor since the last such readjustment on February 9, 1934. It was but one move in a plan to stabilize the entire retail and dealer price structure, the shortening of dealer discounts being intended to lessen the opportunity and incentive to price-cutting. It is not known whether the large distributors of private brand tires were consulted. As it was a foregone conclusion that stabilization could not be hoped for without this cooperation, it is reasonable to assume that some assurance of such cooperation had been received.

Because the large private brand distributors did not advance prices on tires at once, the higher retail prices were not generally observed by the trade. For a time, however, the trend in retail selling prices was toward higher levels than were in effect under the emergency regulations. After several weeks the large private brand distributors did advance tire prices in their retail stores, and for a brief period retail tire prices generally provided a normal mark-up over the average retailers costs.

Shortly after January 1, 1935, the market broke and severe cut-price competition developed in nearly every section of the country. Cut-price tire advertising was featured by dealers and distributors, trade-in allowances were increased to far more than used tires were possibly worth, and the discounts extended to commercial buyers and corporations brought the buying price of such customers below actual costs of production and distribution. Dealers were given cut-backs or rebates to permit them to make such sales at less than their normal purchasing price.

This condition continued throughout the spring and summer months. While executives and spokesmen for the manufacturers publicly denounced unsound practices in the industry, yet efforts to bring about more orderly competition proved unavailing until the end of the season. As of November 1, 1935, the press reported that the leading tire manufacturers had agreed to a truce in the price-cutting and that retail tire prices were to be stabilized at the existing published list.

It is generally conceded that profits for the industry in the

year 1935 have been unsatisfactory, despite the favorable showing made by one or two concerns who have displayed unusual ability to operate very economically. At least two small manufacturers have entirely suspended production, and one of the prominent small manufacturers has been absorbed by one of the Big Fours. While increased requirements for tires for new motor vehicles has increased, the total volume of sales statistics now available indicate that domestic renewal sales will not equal those of 1934.

There is at present, however, a definite feeling of optimism in the Industry as to sales increases and higher market levels to come. Favorable influences cited are the advancement of new model production by automobile makers which increases current demand for tires, the upward trend of crude rubber prices, and the absorption of stocks acquired by large users and dealers at war-time prices. It is felt that these factors may contribute to the permanency of the price-war truce of November 1, and may bring an era of stability and orderly competition at living levels.

To date cooperative effort to improve marketing conditions in this Industry has either been lacking or has failed of effectiveness. Neither by itself nor in cooperation with the emergency regulations imposed by N.R.A. has the tire industry approached that degree of harmony which must be attained if many of its establishments are to endure.

D. CODE AUTHORITIES

The functioning of Code Authorities in administration of Codes for the Rubber Industry presents almost every phase of such operation encountered in the administration of the National Industrial Recovery Act. The several methods of selection of personnel employed, the use of existing trade associations and other agencies, and the financing of code authority operations, present a well rounded picture. Every degree of effectiveness and of application to the task confronted is brought out.

1. SELECTION, ORGANIZATION, AND AGENCIES

(a) The Manufacturing Industries

The Rubber Manufacturers Association, which became Administrative Agency for the Rubber Tire and Rubber Manufacturing Industry Code Authorities, had been a going concern for some 33 years. It was amply financed, had an efficient executive staff and was regarded as an entirely neutral, cooperative service organization by its membership, comprising the majority of both industries. This association financed all pre-code activities of the several Code Committees, placed its staff and offices at the disposal of the various Code and Divisional Authorities and was prepared to assume the expense of Code administration without requiring any assurance from the Administration as to reimbursement by the Industry.

Both Manufacturing Codes called for the election of code authorities by vote of the Industry. One Code Authority of eight

members was to be elected for the Rubber Tire Manufacturing Industry. In the Rubber Manufacturing Industry, Divisional Authorities were to be elected for each of the nine product Divisions under each chapter of the Code, and the nine chairmen of these Divisional Authorities were to serve as a Master Code Authority under Chapter I, the Basic Code. The President and General Manager of the Association was to serve as Chairman (without vote) of the two master code authorities, and Administration Members, without vote, were to be appointed by the Administrator.

Promptly after the approval of the Codes, industry elections were duly held in each division, the code authorities so elected were recognized by the Administration, the mandatory and permissive committees and administrative agencies were appointed and approved and the Code Authorities were prepared to carry on their duties under the Codes.

The Rubber Manufacturers Association was designated under both codes as the agency for collection of statistics, reports and information. It was further designated by administrative order (*) to act as an impartial agency in connection with the development of a

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(*) Ref. Administrative Order 174-3, Approved March 1, 1934

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standard uniform system of accounting for the Rubber Tire Manufacturing Industry.

Its duties and activities as Administrative Agency included:

The making of reports dealing with labor, such as employment, wages, hours, equitable adjustments above the minimum wages, etc.

The making of reports dealing with raw materials, inventories, production, costs and sales.

Recording and distributing information concerning Code Authority and Industry activities under the Codes.

Recording and distributing filed prices, when required under the Codes.

The development of a uniform system of accounting and cost formula.

Special studies, such as the study of a market stabilization plan based upon cost control in the Tire Manufacturing Industry.

The associations cooperated wholeheartedly with the Administration and was prompt and thorough in carrying out these assignments.

(b) The Retail Tire and Battery Trade

The National Tire Dealers Association, which sponsored the Retail Tire and Battery Code was a loosely knit Association of some 160 local trade groups. Its revenue from such groups had been negligible and its expenses in the sponsorship and formulation of the Code had been met by subsidy from the Manufacturers Association. This Association looked forward to the approval of a retail tire Code as an instrument which would strengthen their position in the trade and insure financial support through Code assessments.

Because the large number of establishments in the trade, estimated at 180,000, and the national distribution of these establishments made the holding of an election difficult, the Code provided that the Code Authority should be appointed by the Administrator. Nine members were appointed, six representing independent dealers in designated geographical regions, one representing oil companies, one mail order and chain stores, and one representing manufacturers owning retail tire stores. The General Manager of the National Tire Dealers Association was to act as Chairman of the Code Authority without vote.

The Administrative Order appointing the Code Authority was issued May 28, 1934, after some hundreds of individual names suggested by those interested in the trade had received due consideration.

The Code Authority met for organization on June 4, 1934. The Code had provided that the Authority was authorized to use such trade associations and other agencies as it deemed proper for carrying out the activities designated in the Code. The Code Authority was further authorized to establish regional or trade area Control boards, with the approval of the Administrator, to act as price filing agencies and administer other provisions of the Code in their respective areas.

At the organization meeting held June 4 to 8, 1934, much time was occupied in discussion of prices and alleged violations of the price provisions of the Code which individual members of the Authority had observed. Little time was given to the matter of organizations. The Authority finally passed a resolution authorizing the Chairman to complete and present to the Administration details of organization of District Control Boards, approved a hastily thrown together budget and basis of assessment and adjourned. As there were but two subsequent meetings of this Code Authority the reasons why no effective organization was ever completed are apparent.

The Code provision that an impartial agency be designated for collection of statistics reports and information was never carried out. The National Tire Dealers Association had done but little in this respect and examination of statements and figures supplied by this Association indicated that their information as to the extent and characteristics of the trade they represented was very inexact.

2. FINANCIAL ASPECTS OF CODE AUTHORITY OPERATION

Both Manufacturing Codes provided that members of the Industry were entitled to participate in all activities of the Code Authorities or the Association by becoming members of the Code; further, that

members of the Code should bear their equitable share of administration expense either by becoming members of the Association or by paying to it proportionate sums as determined by the Code Authority, subject to review by the Administrator.

The Retail Tire and Battery Code provided for the approval of an itemized Code Authority budget and basis of contribution by the Administrator, assessments upon the trade after such approval to be mandatory.

(a) Financial Administration, Manufacturing Industries

Prior to Codes, the Association had collected from its members an annual membership fee and an assessment based upon tonnage of crude rubber consumed. With the necessity for financing various Code Administration costs in the several divisions of the Industry, acting under a suspension of its by-laws, the Association voted for an assessment of a percentage of dollar sales in each division, forecast quarterly and equalized with actual expense annually. Exceptions to this were made for the Automobile Fabrics, Proofing and Backing Division and the Rainwear Division. In the Automobile Fabrics, Proofing and Backing Division, the assessment was based upon a percentage of production payrolls. In the Rainwear Division a separate itemized budget was submitted and approved by the Administration. This was financed by the sale of garment labels, the use of which was mandatory upon members of the Industry.

With considerable variation among individual divisions, Code Authority expense in the Rubber Manufacturing Industry averaged about one-tenth of one percent of sales. Contributions being on a voluntary basis there was little difficulty as to collection and no members were cited to the Administration for non-payment. Members of the Industry had supported their association for many years and paid the increased expenses of Code administrative almost without protest. This feature of Code administration presented no difficulty to Code Authorities or the Administration. The financial administration of the association had been excellent, accounts were regularly audited by public accountants, and statements presented to the Administration for review with but one exception.

In February, 1935, an order was issued by N.R.A. (*) requiring all Code Authorities operating on the basis of voluntary contributions to submit detailed budgets, payrolls, etc. to N.R.A. for approval,

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(*) Administrative Order No. X-136, February 26, 1935

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providing that unless approval was given, further contributions could not be received nor disbursements made.

The Chairman of the two Manufacturing Code Authorities, Mr. A. L. Viles, requested an extension of the time within which the budgets

should be submitted and this request was granted by Administrative Orders. This extension of time had not expired when Code Authority activities were suspended - May 27, 1935.

The Annual Report of the Rubber Manufacturers Association for the year 1934, duly submitted to N.R.A. for review showed Code Administration expenses for that year as follows:

Code Administration expenses for the year ending 12/31/34
Rubber Manufacturing Industry - Code #156.

Automobile Fabrics-Proofing and Backing Division	$22,129.33
Rubber Flooring Division	4,318.29
Rubber Footwear Division	23,751.10
Hard Rubber Division	10,051.09
Heel and Sole Division	27,700.16
Mechanical Rubber Goods Division	86,077.77
Sponge Rubber Division	3,027.93
Rubber Sundries Division	13,920.63
Rainwear Division	36,996.30
Total Expense - Code #156	$227,972.40

Rubber Tire Manufacturing Industry - Code #174

Tire Manufacturers	173,168.06
Total Expense - Code #174	173,168.06
Grand Total Expense - Codes #156 and #174	401,140.46
Grand Total Incomes - Codes #156 and #174	435,254.38
Grand Total Expense - Codes #156 and #174	401,140.46
Excess of Income over Expenses	$ 34,113.92

(b) Financial Administration, Retail Tire and Battery Code Authority

Unfortunately, the record of successful and satisfactory financial operation presented by the Manufacturing Industry Code Authorities is not duplicated in the case of Retail Tire and Battery Code Authority.

It was originally planned that a composite budget would be presented covering the expense of the National Code Authority and all of the district control Boards which would be set up under it. Proposals for the establishment of district control boards of every size and type, with varying and often excessive bases of assessment on the trade for their maintenance, were submitted. These the National Code Authority transmitted to N.R.A. piece-meal and apparently without scrutiny or correction. Meanwhile, the National Authority's subsidy from the

manufacturers association being curtailed once their code was approved, that organization was itself without funds and incurring indebtedness.

It was then determined to approve a separate budget for the National Code Authority and to deal with district control board expense apart from that. On August 11, 1934, N.R.A. approved a budget of $271,000 for the National Code Authority for the year May 1, 1934 to April 30, 1935, this budget to be contributed by members of the trade on the basis of one dollar for the first thousand dollars of sales volume, and seventy-five cents for each additional thousand.

One of the N. R. A. 's regulations, Order X-36, provided exemption for members of industry coming under more than one code from liability for code assessments under codes applying to other than their principal line of business, unless such code authorities had applied for the termination of this exemption and their application had been approved by the Administration. The Retail Tire and Battery Code Authority neglected to apply for this termination, although advised to do so until the National code authority budget was approved. Their application was noticed for a public hearing to be held on August 21, 1934.

The termination of this exemption was a very important issue in this case. Census of Retail Distribution figures indicated that of the estimated 180,000 establishments in the trade, only about 11,000 considered tires and batteries their principal line of business. It was manifestly impossible to collect the funds needed from this small group and determined opposition to payment of assessments was anticipated from mail order, chain stores, and oil companies retailing tires as a side line.

On the day of the Public Hearing on the application of the Retail Tire and Battery Code Authority for the right to assess all members participating in the Trade, N. R. A. issued another regulation on this subject, This was Order X-78, which established permanent exemption for any wholesale or retail establishment from the necessity of paying code assessments on any other than their principal line of business.

In the opinion of the Retail Tire and Battery Code Authority this regulation effectively ended any possibility of their being able to collect from the trade sufficient funds to support their activities. In fact the Authority never mailed any assessment notices to the trade until November 15, 1934. Some 30,000 notices were then mailed with a total return in collections of slightly over $6,000. Meanwhile the Code Authority continued operations on the same scale as previously, accumulating deficits in spite of contributions from tire manufacturers paid in anticipation of assessments to be levied on their retail stores.

The Retail Tire and Battery Code Authority submitted to N. R. A. for approval applications and budgets from 57 local organizations desiring to be appointed as District Control Boards. The total of these budgets was over $1,100,000. As these organizations covered only about one half the market areas in the trade it was apparent that approval of these applications would contemplate an expense for administration of this Code amounting to at least $2,000,000. Since the experience

with the National Code Authority's budget indicated that the collection of such an amount was impossible as well as unadvisable, N.R.A. withheld approval of these applications. Many of the local organizations anticipating approval, incurred obligations and the administration was subjected to much criticism.

Finally, the National Code Authority submitted a revised annual budget of $65,840 and a revised basis of assessment, members to pay $2.00 for each establishment, plus $.25 for each employee. This was approved by N.R.A. on February 5, 1935. Meanwhile N.R.A. by another Order, X-131 had provided that members of wholesale or retail trades might pay equitable assessments on other than their principal line of business, securing credit against their principal assessment for sum so paid.

By this time the ineffectiveness of the Retail Tire and Battery Code in establishing higher prices on tires, which was the principal thing that the trade had hoped for from it, had discredited the code with many of the members of the trade. When assessment notices were mailed, for the most part theywere ignored or protest made to N.R.A. Some 500 written protests were received by the Administration. The two reasons for protest most in evidence were that the retailing of tires and batteries was a minor item of business and that the Code had been of no benefit.

It is true that the N.R.A. regulations, Order X-36, and X-78 seriously handicapped the Code Authority in the collection of funds. Its own ineptitude in planning and organizing for administration of the Code, and the delay and tardiness in all its actions in this respect were even greater handicaps. The association had apparently had little support within the trade it claimed to represent and its chief revenue had been the subsidy received from the manufacturers association, and which was discontinued once the Code was approved. Finally, the Code Authority closed its office in Chicago and suspended operations, having an accumulation of obligations and no adequate revenue from Code assessments.

3. EFFECTIVENESS OF CODE AUTHORITIES

It is difficult to draw a line in this discussion between the record of success or non success of codes as instruments for industrial government and the effectiveness of Code Authorities as industrial governing bodies. While there may have been examples of a code authority doing a good administrative job with a faulty instrument and a recalcitrant industry, yet for the most part the three factors, the effeciency of the code itself, the ability of the authority, and the attitude of the industry are inseparably intermingled in the results obtained.

(a) Code Authorities in the Rubber Manufacturing Industry under Code #156.

The Rubber Manufacturing Industry Code was in reality administered by the nine divisional authorities, each acting for their

particular product group. The master Code Authority, consisting of the Chairman of these divisional authorities, met but 6 times and their actions were mostly formal ratification of actions of the divisions. In fact, the negotiations leading to the approval of the uniform accounting manual and cost formula were between N.R.A. and the Industry itself, represented by the association, rather than by the master code authority.

The divisional authorities demonstrated various degrees of activity and effectiveness. The Automobile Fabrics, Proofing and Backing Division, the Heel and Sole Division and the Mechanical Goods Division were most active in so far as number of meetings held and amount of work done. The Hard Rubber Division, Sponge Rubber Division, and Sundries Division accomplished but little and conditions in these divisions were affected but little by code provisions. In the Rainwear Division, although the Code Authority itself held but eight meetings, there were numerous meetings of trade practice complaints committees and hundreds of individual cases of wage restitution were adjusted. This divisional authority also handled very well the complex problems of label administration and collection of finances through the sale of labels. Through the work of this code authority a loosely knit and scattered industry was brought together in far more concerted fashion t than ever before, and the condition of workers was materially bettered.

Several problems arose in the processes of code administration which are worthy of mention here, inasmuch as failure or delay in correcting these conditions in some cases destroyed industry's interest in their codes and impaired the effectiveness of the code themselves.

In the Automobile Fabrics, Proofing and Backing division and in the Heel and Sole Division price cutting wars developed, breaking down the efficacy of the price filing provisions and in the latter case resulting in the staying of the provisions, themselves, practically ending industry interest in the Code.

In the Rubber Footwear division the dispute over refusal to file prices by four important members, and the delay following the referring of this dispute of the Federal Trade Commission destroyed any effect the Code might have had and all interest members had in it.

In the Rainwear Division, disputes arose over the matter of code jurisdiction over various types of apparel. The Industry was greatly dissatisfied with delay and the action finally taken by the Administration in adjusting this matter.

The action taken by the Administration in the case of unwarranted and over-zealous activities of the Mechanical Goods divisional authority, already discussed, set very ill with the authority and the Industry itself.

In the Rubber Flooring Division a complete and well drawn code, a sincere and efficient authority and unusual solidarity and community of interest among the 15 industry members contributed to provide an outstanding case of code effectiveness and improvement in

Industry conditions. Practically every member of this division addressed letters to the Administration during hearings by the Senate Finance Committee, citing good effects of the Code and urging its continuance.

(b) The Rubber Tire Manufacturing Code Authority

In the Rubber Tire Manufacturing Industry the Code Authority cannot be said to have been an effective or successful industrial governing body. This conclusion must be tempered by consideration of the Code itself, which was at best a compromise between conflicting Industry proposals looking to price fixing and the policies of N.R.A. in that respect. Furthermore, the apparent change of policy on the part of the Administration which prevented approval of the accounting manual and cost formula as submitted, blocked plans for market stabilization based upon cost control and keenly disappointed both the Code Authority and Industry.

However, the record shows that of the eight specific assignments given the Code Authority under the Code, not one can be said to have been successfully concluded in time to have been of any real benefit to the Industry. To some extent the composition of the Code Authority itself was a drawback. Members represented four large and four small establishments. Often the diametrically opposed interests of large and small companies so influenced viewpoints as to result in a dead lock on the question at issue.

(c) The Retail Tire and Battery Code Authority

The Retail Tire and Battery Code Authority was a singularly ineffective body. Lack of funds to finance even individual expense incurred by members and the fact that they were scattered all over the country contributed to the result. However, even at such meetings as were held, more time was consumed bickering over price regulations than was given to the real problem of effective organization for administration of the regulations provided.

The enthusiasm and interest which accompanied the earlier stages of code authority administrative work waned in almost every case. The difficulties encountered in applying some code provisions, the delay in securing governmental action in instances requiring it, both contributed to this situation. The realization that codes as written were not a solution of all industry problems and the tedious and unselfish planning and administration necessary to make even codes fulfill their purpose proved too much for some individuals. The decline in interest is indicated to some extent in the following record of code authority meetings held. The decline in frequency of code authority meetings in 1935 over 1934 is marked:

	Number of Meetings		
	1934	1935	Total
Master Code Authority Rubber Mfg. Industry	5	1	6

Automobile Fabrics Division	12	4	16
Rubber Flooring Division	6	2	8
Rubber Footwear Division	7	none	7
Hard Rubber Division	4	1	5
Heel and Sole Division	22	1	23
Mechanical Goods Division	16	4	20
Sponge Rubber Division	2	none	2
Rubber Sundries Division	6	none	6
Rainwear Division	7	1	8
Rubber Tire Manufacturing Industry	12	none	12
Retail Tire and Battery Trade	3	none	3
Total Code Authority Meetings Held	102	14	116

It is evident that Code administration by Code Authorities was made more effective when an efficient, adequately financed trade association was available as an administrative agency. The period of t time codes were in effect was rather short for the code authority of a previously unorganized industry or trade to perfect an organization as effective as that of a good trade association.

The part-time administration members originally appointed on the Code Authorities were handicapped by the facts that they were not familiar with specific industry problems and in the time allotted they could not learn enough of the sometimes involved Administration procedure to aid the authority materially. Later when full-time administration members were chosen from the trained staff of N.R.A., liaison was materially improved. Even then, the number of code authorities assigned to each man handicapped him in giving enough time to all of them.

An administration member or members trained in N.R.A. technique and requirements and with sufficient time to give to the work might have spurred the Tire Manufacturing Code Authority to action on some of the assignments they neglected. He could perhaps have steered the Retail Tire Code Authority through the financial entanglements which resulted in their downfall. He surely could have prevented the overzealous actions of the Mechanical Goods Divisional Authority which resulted in charges being preferred against them by N.R.A.

While the effectiveness demonstrated by Code Authorities in this Industry left much to be desired there is sufficient evidence to indicate that in some cases their efforts brought about real improvement in Industry conditions. In those failures which resulted, blame should be placed perhaps equally upon the Code provided, the code authority chosen to administer it and the attitude of the Industry members themselves toward that form of cooperative effort.

If the spurt in demand for rubber products in the fall of 1933 had continued, with accompanying increased activity and optimism in the Industry, the record of accomplishment under codes of fair competition might be entirely different. As it was, performance fell short of the announced objectives of the National Industrial Recovery

Act in many respects.

The effect of codes upon standards of labor presents the most favorable aspect of the record, though even here is found confusing and sometimes conflicting evidence. Voluntary shortening of hours of work, and the response to the President's Reemployment Agreement had increased the number of workers and raised wages from depression low points. Under Codes, hourly wages increased steadily but employment, in man-hours, declined with lack of demand and production.

Undoubtedly Codes increased wage rates for lower paid workers. To that extent purchasing power was increased and the standards of labor improved. But there was no united action on the part of labor and management looking to solution of common problems. The two most important cases of non-compliance involved refusals of management to hold elections for the purpose of collective bargaining. Serious threat of a general strike in the Akron, Ohio district was only stayed by a truce pending the outcome of these cases in the courts when the codes ceased to exist. Industry took no action concerning uniform standards for safety and health of workers or the designation of hazardous occupations unsuited to minors as provided for in the Codes. As labor made no protest on this, evidently existing state or local laws and self-imposed standards were considered adequate.

There was some improvement in organization and cooperation among trade groups. Mechanical Rubber Goods Manufacturers and Rainwear Manufacturers developed real cooperative industry organizations. On the other hand, the Codal period saw the Retail Tire Dealers Association suspend activity and the general failure of regulation in the Tire Manufacturing Division left that Industry less organized than it had been before. Since the termination of codes, important members of the tire division have withdrawn from the Rubber Manufacturers Association.

As to trade practice, very little improvement was brought about. The few complaints as to violation of so-called Class A trade practice provisions indicate a relatively high standard of ordinary business honesty in the Industry prior to codes. The unsound practices of profit-less selling and price-cutting solely to destroy competitors continued. The attempted regulation by minimum prices in the retail tire trade resulted merely in shifting the method of attack of competition, not in curbing its intensity.

To some extent lack of favorable results may be chargeable to faulty code provisions. This is particularly true of the minimum price regulations applied in the retail tire trade. Very evidently the proponents of this measure did not realize the quality of competition seeking to maintain sales volume in a declining market. Another example of ineptitude in code formulation was the provision calling upon the tire manufacturing code authority to secure agreement of a majority of that industry to a plan for market stabilization and present it to the administration within 60 days. During six months, this particular industry had agreed upon nothing at all, even under the guidance of, and sometimes strenuous pressure from the Administration.

These were but contributory causes, however. Years of unprofitable operation, the burden of excess capacity and the declining demand for products of the Industry had produced a condition of instability and of panic. The Industry was far from facing the forces of depression with a united front. Legislative fiat could not replace the mental attitude of every man for himself with the attitude of give and take for the common good. The period of code formulation and even the period of code administration record, a long drawn out struggle by factions and individuals to preserve or to out-law practices which they considered to have important competitive advantages or disadvantage.

If this judgement of the Industry's attitude seems unduly harsh, it may be tempered by the realization that throughout this period, the pressure of competition within the Industry was not relieved by any increase in demand for its products. In fact improved quality and economy in use, due to the exigencies of depression, continued to curtail demand.

It has been said that the chief end of education is that we learn <u>how</u> to learn. If the rubber industries but learned <u>how</u> to cooperate, even though economic forces prevented cooperation for the time being, codes may have served their purpose to a greater degree than they have been given credit for here. Improved general business activity and improved demands from industry and transportation for products of the Industry may present the opportunity for cooperation and united action which the Industry must develop if it is to prosper.

CHAPTER V

POST CODE DEVELOPMENTS AND FUTURE PROBLEMS

As the significant developments in the Rubber Industry during the period since the termination of Codes serve to indicate continuing problems of the Industry as well, this Chapter will discuss both topics concurrently, under the captions of (A) Market demand and production trends, (B) Employment and standards of Labor, (C) Raw material supply and prices, and (D) Marketing Policies and Profitability.

A. MARKET DEMAND AND PRODUCTION TRENDS

Due to the diversity of uses for rubber goods other than tires, the production trend in that division of the Industry is inclined to follow general business activity closely. Here are products ranging from industrial equipment to clothing, household articles, toys, and novelties. Fluctuations in production of one article are counterbalanced by another, and considered as a whole, the production index will rise or fall with that of what may be termed general merchandise.

Tires, on the other hand, enter the field of transportation, public and individual, either as equipment on newly manufactured automobiles and trucks, or as replacements on those in use. In the first instance, demand follows directly automotive production, and in the second it is affected by the number of cars in use, the amount of driving done, the increasing life of the product in service, and other factors such as retreading.

Thus the index of production of rubber goods other than tires, while lagging somewhat behind the previous year during the first half of 1935, has risen sharply since then and is now at a higher point than at any time since 1930. This has increased raw material consumption and employment in that division of the Industry.

Automobile production in the first months of 1935 stimulated production of tires. Another factor was apprehension of labor trouble and the possible interruption of plant operations, should that occur. Renewal tire sales, however, lagged behind those of the previous seasons and production in June, July, and August fell off to the lowest point in three years.

These months, however, saw material declines in stocks on hand so that the requirements for equipping new cars following automobile manufacturers introduction of new models, and the necessity for accumulating stocks for winter and spring shipments to dealers and distributors, combined to bring November and December production activity to very high levels.

The advanced date of announcing new automobile models means that tire requirements for that market are but borrowed against production that would normally come in 1936. It is now clear that sales of tires for renewal purposes in 1935 will not equal those of 1934. Since

but four manufacturers participate in original equipment business, unit production and sales for most manufacturers will have been less for 1935 than for the previous year. Nor is the present outlook for renewal of sales in 1936 much brighter, as we shall see.

The Rubber Manufacturers Association, in a brief submitted to N.R.A. in 1933 stated as follows:

"The average mileage afforded by tires in service has been:

Year	Average Mileage
1914	3,500
1922	8,000
1930	15,000
1933	20,000

"The present day tire will on the average afford approximately 20,000 miles and when carefully supervised as to inflation, proper mounting and proper loads, frequently affords as high as 50,000 miles and sometimes as much as 65,000 to 75,000 miles."

This improvement in quality and the increased mileage built into tires is naturally drawn upon even more by the user under the exigencies of depression conditions. Tires formerly discarded soon after the non-skid tread design was worn smooth are now continued in service for thousands of additional miles. The practice of retreading tires once removed from service has increased very rapidly. Mr. E. G. Holt, Acting Chief, Leather and Rubber Division of the Bureau of Foreign and Domestic Commerce in a bulletin issued September, 1935, states that at least two million tires will be retreaded during 1935.

As retreaded tires will afford mileage at approximately half the present cost of new tires, this business will prove a considerable deterrent to increases in tire prices and will mean further displacement of new tire production if tire prices are raised.

With the increased mileage delivered by tires and the present practice of automobile manufacturers equipping all new cars at the factory with one or often two spare tires, the length of time before the new car purchaser becomes a renewal tire buyer is increased. For the most part cars are operated well into the second year before tire replacements are necessary. In fact, heavy sales of new automobiles may decrease renewal tire sales temporarily, by retiring into dealers' used car stocks automobiles which would require tire replacements if on the road.

It is doubtful, therefore, if renewal tire sales in 1936 will exceed those of 1935 and increases in tire production will depend entirely upon increased automobile manufacture.

B. EMPLOYMENT AND STANDARDS OF LABOR

The passing of N.R.A. codes did not see any immediate or marked departure from existing standards as to hours and wages in the Rubber Industry. In one respect the industrial relations situation was definitely cleared by the Supreme Court decision. The United States Circuit Court of Appeals on June 7, 1934 ruled in favor of the Goodrich and Firestone companies' action seeking to restrain the National Labor Relations Board from forcing elections at their plants for the purpose of collective bargaining. With these decisions the threat of a general strike in the Akron rubber factories dissolved, at least for the time being.

That later months saw a gradual lengthening of hours of work in the Industry is a matter of record. The months of July, August, September, and October 1935, provided an increase in man hours of employment in the Industry of 9 per cent over the same period of 1934. The average number of workers given employment during that period, however, was about 1600 less than in 1934, a decline of 1.4 per cent. The decline in employment was altogether in the tire division of the Industry as other manufacture showed a net increase in number of workers employed.

Late in the fall of 1935, the Goodyear Company announced their intention of abandoning the 6 hour work-shift plan which they had put into effect in October 1930. The management announced to employees that this change to a basic 8 hour day was in order to provide greater flexibility and a part of their general program to stabilize year-round employment on the basis of 144 hours per month at an average monthly wage which should provide a higher living standard than existed in pre-depression days. However this monthly wage contemplated a reduction in average hourly wages then being paid.

The workers in Goodyear's plant objected strenuously to this proposal. The request of the company union for a factory-wide referendum was refused by the management. The workers then carried the dispute to the Secretary of Labor, who appointed a fact-finding board to make inquiry into the situation. The report of this board was favorable to the workers' side of the argument and critical of the company's proposed action. According to press reports the Goodyear Company has announced that increased production has made the change unnecessary and that for the present there will be no lengthening of hours of work in their plant.

This controversy is significant in that it represents an effort by one of the largest employers of labor in the industry to effect economy at the expense of labor, lengthening hours of work and reducing hourly wages despite the fact that this must increase the number of unemployed and add to the burden of public and private relief agencies. Here is a concrete example of the security and return of labor being undermined as a direct result of futile and destructive competition in the market-place.

In his report "Labor Productivity in the Automobile Tire Industry", Mr. Boris Stern, of the Department of Labor, states:

> "From the point of view of labor employment the Tire Industry appears to be 'burning the candle at both ends', reducing the total demand for tires by

improving the quality of the tire and at the same time further reducing the demand for labor by continually increasing the output per man hour. There is at present no indication of any change in this trend. Unless there is an inforseen, enormous increase in the total demand for tires, or unless definite steps are taken to increase the volume of employment in the Industry by shortening the hours of work, there is bound to be further reduction in total requirements for labor and therefore further unemployment in the tire industry.

"* * * * The shorter shift and the shorter week, accompanied by adjustments in the hourly wages, may result in an increase in the labor cost of tire production. This is not an impossible development in an Industry which for more than a decade has diverted to the consumer nearly all the benefits arising from the improved quality of the tire and from the labor savings caused by technological changes, in terms not only of a better tire but also of much reduced prices per tire.

"* * * By eliminating cut-throat competition * * * * it would be possible for the tire manufacturers to divert some of the benefits arising from further improvement in the quality of tires or additional savings in labor toward the employment of a larger volume of labor and a shorter working week. This alone will safeguard the Industry from further increase in the ranks of its unemployed workers."

This statement was written in 1933 when the Industry was generally operating on a 6 hour day and not to exceed a 30 hour week.

The Industry is deserving of credit for their voluntary shortening of hours to spread work in 1930. Equally so are they now open to criticism for any effort to effect economies at the expense of workers, to offset losses incurred in unsound distribution practices.

Perhaps the most pressing present problem in the Industry and one that will continue to call for a solution, is to provide permanency and security of employment for the workers who have been recruited to and trained in and who now are dependent upon the rubber industries for their livelihood.

C. RAW MATERIAL SUPPLY AND PRICES.

The Rubber Industry has enjoyed a year of comparative stability in supplies and prices of its principal raw materials, crude rubber and cotton. In this connection, interest is naturally centered upon crude rubber because of foreign control over that commodity and previous wide fluctuations in supply and price, with their attendant hazards for American Manufacturers.

While manipulation of production quotas by the international

rubber regulation committee has not to date affected any great reduction in world stocks of crude rubber, this of course is the avowed intention. This tends to increase prices, and the New York price has risen during the past year, with but temporary recessions. United States consumption of rubber has accelerated sharply during the last half of 1935 and domestic stocks of rubber have declined. During October, November, and December 1935, United States consumption has exceeded importation by about 15,000 tons per month. It is now said that because of quota restrictions upon exports in the producing countries of the Far East, our manufacturers may soon have to purchase rubber in the London and Liverpool markets, where stocks are available. This will mean further increase in price. Unofficial estimates by officials of the Bureau of Foreign and Domestic Commerce are that the New York price of crude rubber may easily reach 18 or 20 cents during 1936.

Increasing prices of raw materials have usually been accompanied by increased profits for the Industry. This is not alone due to speculative gains on inventories, but due to the salutary effect of increased material costs upon operating and marketing policies. From this viewpoint increased costs of crude rubber would by no means be an unmixed evil.

Increased crude rubber costs naturally stimulate the production and use of substitutes for the imported article. At present the only important substitute for crude rubber used in United States manufacture is reclaimed rubber. Although the greatly improved quality of reclaimed rubber and its increased adaptability to use in various articles of manufacture have rendered it less susceptible to fluctuations in price of crude rubber, some stimulation of production would be effected. The Bureau of Foreign and Domestic Commerce Rubber Industry Letter of May 8, 1934, states:

> "It is probable that a sustained 15 cent price for rubber would within two years result in 30 per cent as much reclaim as of crude being used in this country and that 40 per cent might be possible of attainment with 20 cent rubber. Even a sustained price of 12 cents for crude rubber might result in a 30 per cent use of reclaim within three years."

Therefore, present crude rubber price trends will stimulate production and employment in this division of the domestic industry, an eventuality greatly to be desired.

One large American manufacturer of chemicals has developed a synthetic rubber which has most of the desirable qualities of crude rubber and is markedly superior to it in some respects. This product is already used in the manufacture of hose for handling oils, gasoline, etc., for tank car linings and for coating fabrics. Production facilities are as yet very limited and prices prohibitive for many uses. In Germany the development of synthetic rubber is being aggressively pushed and in Russia, with their policy against importing raw materials, the production of synthetic rubber and its use in tires and other products is already a large-scale operation.

While the Department of Agriculture is experimenting extensively

with the culture of rubber producing plants on American soil, there is as yet but one commercial venture in this field. Guayule, a shrub native to the arid areas of the southwest, is being grown and rubber produced from it. The present quality is unsatisfactory but improvement is being made.

Progress in the field of substitutes for imported crude rubber has been sufficient to indicate that there are possibilities the Industry may do well to take into account in their expenditures for plants and equipment suttable only for processing the present raw material.

D. MARKETING POLICIES AND PROFITABILITY

At the time of the Supreme Court decision effecting N.R.A. the Rubber Industry was embroiled in price-cutting competition affecting a number of important product divisions of the Industry. These included tires, heels and soles, rubber sundries, and automobile fabrics. As the tire situation is typical of the price policies of the Industry and is at the same time most readily followed,— the following discussion will be principally concerned with it.

The efforts of the Rubber Manufacturers Association and of leading manufacturers had effected a price stabilization truce as of November 1, 1934, following the discontinuance of the minimum retail tire prices fixed by N.R.A. This program had held together until shortly after January 1, 1935, when the Industry again became involved in disorderly price competition which soon sent quotations below cost of manufacture and distribution. This was but temporarily halted on May 1 by a general agreement based on a suggested consumers list price about 10 per cent below the list prices issued on November 1st.

This time, it is said, the market was broken by the desire to liquidate manufacturers' heavy stocks of tires built up early in the year in anticipation of possible labor troubles, and interruptions in plant operation. Whatever the cause, the price situation became thoroughly, demoralized and continued so throughout the summer and until November 1st, when manufacturers generally announce their programs for the season to come.

November 1, 1935, brought another cessation of hostilities, this time undoubtedly influenced by complaints from disgruntled security-holders and unfavorable comment on the industry's tactics in the public press. A delegation of sales executives of leading companies made a circuit of important cities, holding mass-meetings of tire dealers and distributors in an attempt to sell the program of more orderly competition.

In the meantime the National Tire Dealers Association had been reorganized and had made a request to the Federal Trade Commission that that body formulate a code of fair practices for the Industry. The Commission has proposed to manufacturers, wholesalers and distributors, including mail order houses and oil companies, that a conference be held to consider such a step. It is entirely possible that most of the Industry will welcome the chance to discuss opportunities for improvement.

Two chief executives of leading companies in the Industry have

recently made public statements, decrying "unsound marketing practices", and announcing that their influence will be thrown toward stabilization at more profitable levels. In a bulletin to the Goodyear sales and distributing organization, President P. W. Litchfield made this declaration concerning 1936 operations:

> "1. Positive stability of price this year to all classes of Goodyear customers will be insisted upon.
>
> "2. Operations must be at a profit.
>
> "3. Prices will not be sacrificed to increase volume of production.
>
> "4. Elimination of the special warranty - unlimited guarantee on tires against all road hazards - at the earliest possible date."

It is generally conceded that the year 1935 has been one of unsatisfactory earnings in the Tire Industry as a whole. Only a few company profit and loss statements have been published and among these but one company. Firestone, has reported earnings equal to those in 1934. General Tire and Rubber Company, fifth largest in the Industry in sales volume, reports a net loss from operations for the second time in their history since 1915.

During the year two small companies have been absorbed by competitors, two others have suspended operations. Competition of the type existing throughout 1935 has indicated clearly a war of extermination, intentionally destructive price cutting, no less.

Unless the Industry unites upon some program and develops a greater unity of purpose and degree of harmony in maintaining that program than has been shown heretofore, there is little hope of better times. The mortality of establishments and dissipation of capital will continue until a state of complete monopoly is reached.

APPENDIX I

I. SCOPE OF STUDY

The Planning Committee of the Industry Studies Section originally designated the Rubber Industry Study as a minor study.

In a conference held September 16, 1935 with the staff assigned to the project, the Planning Committee outlined the intended objectives of the Study. The Chairman of the Committee stated that the objective was to record the determination, operation and effect of price control provisions in the Rubber Codes, particularly the use of the Declaration of Emergency device and the minimum price regulations established in the Retail Tire Trade.

To attain this objective and set forth an account of price control in this Industry in proper perspective as to the need for such regulation there was needed:

(a) A survey of the Industry as to its extent, statistical and technical position, relationships with workers, users and other industries, and its long continued record of unprofitability.

(b) The major and special problems of the Industry, foreign domination of raw materials, over-expansion, limitation of markets, price instability and internal discord.

2. METHODOLOGY

There were in all four approved Codes applying to divisions of the Rubber Industry and Trade. These divisions were the Rubber Tire Manufacturing Industry, the Rubber Manufacturing Industry (other than tires) the Retail Rubber Tire and Battery Trade, and the Reclaimed Rubber Manufacturing Industry. Only the first three divisions have been dealt with in this study.

The chief source of data was of course the files of the National Recovery Administration. During the formulation and operation of the Rubber Industry Codes there had been accumulated a large amount of information relative to conditions in the Industry, statistics, cost and price data and correspondence with trade bodies and individual members of the Industry.

Other sources of data were:

<u>United States Government Departments and Agencies,</u>

Bureau of Foreign and Domestic Commerce, Department of Commerce,
Bureau of the Census, Department of Commerce
Bureau of Labor Statistics, Department of Labor
Bureau of Internal Revenue, Treasury Department
Securities and Exchange Commission

<u>Private organizations and agencies,</u>

Rubber Manufacturers Association, Inc., New York

Rubber Growers Association, Inc., London, England
Dun and Bradstreet Inc., New York
Standard Statistics, Inc.
Professor W. W. Leigh, the University of Akron

Publications quoted or referred to,

America's Capacity to Produce, Edwin G. Nourse, The Brookings Institute
Analyzing our Industries, Frazier and Doriot
Labor Productivity in the Rubber Tire Industry, Boris Stern, the Department of Labor
Rubber Restriction under the Stevenson Act, J. W. F. Rowe, London and Cambridge Economic Service
The Modern Corporation and Private Property, Adolph A. Berle, Jr., and Gardiner C. Means.

The three individuals who assembled information from these sources and later wrote the text of the report have each spent many years in the Industry itself and participated in the entire period of Code Administration under the National Recovery Administration. Evaluation and interpretation of the data presented is therefore coupled with individual experience and knowledge. Interpretations, statements, or opinions unsupported by factual data are advanced only when agreed upon by the writers.

Because of individual acquaintance or experience with the subject treated, Chapter II of the report was completed by Mr. W. H. Cross, Chapter IV by Mr. J. H. Lenaerts, and Chapters I, III, V, and Section C-3 of Chapter IV by Mr. G. S. Earseman.

In the text of the report annotations have been kept to the necessary minimum. This was done to make for easier reading, much of the subject matter being, perforce, dry narrative of procedure in administration. All work materials have been preserved in proper form and work sheets are fully documented as to source, data and writer.

3. INCOMPLETE ASPECTS OF THE REPORT

The report is neither a complete survey of the Rubber Industries nor a complete narrative of their experience under Codes of Fair Competition. The writers were under mandate from the Planning Committee to present a complete resume of the Emergency minimum price device, and of the operation of other price stabilization provisions which would add information as to the Industry's reaction to regulation on this point. Other problems existing in the Industry and other phases of code administration are only treated insofar as they bear upon the price situation or were affected by it.

4. OTHER ISSUES WHICH MAY PROFITABLY BE EXPLORED

The treatment of the situation of labor and of industrial relations in the Industry is very incomplete. The previously unorganized state of labor, the rapid development of company unions following

the passage of the National Industrial Recovery Act, the recent formation of a Federal Union recognized by the A. F. of L. and the problems confronting that organization are well worthy of careful study.

The marked disparity between wage rates in the Akron, Ohio, district and those elsewhere in the country should be studied. Because at least 60 per cent of tire production is concentrated in the Akron district this factor increases the differential already existing between wage rates in the tire and other rubber goods manufacturing divisions. Further, although hourly wage rates have been comparatively high in the tire industry and even annual earnings have been higher than in most other industry, the very low share of "value added by manufacture" represented by wages calls for more careful analysis than could be given it here.

Certainly many adjustments must be made before the outlook for labor in this Industry may be considered a favorable one. All research and fact-finding which may aid in making these adjustments on an amicable basis should be furthered as much as possible.

No attempt has been made to forecast trends of demand or production. The considerable excess productive capacity of the Industry at present is obviously the result of bad guessing in this respect in the past. The rapid obsolesence of costly production equipment such as tire molds, due to changes in sizes and designs, means that much existing equipment will never find use. Few industries are so fortunate as the tire industry in the wealth of statistics available as to market possibilities. The registration of motor vehicles provides accurate data as to size, type, location, and use. Gasoline tax data provides current information as to consumption of motor fuel and therefore mileage driven and tire consumption. Yet the industry has obviously guessed badly again and again on market requirements. The development of an adequate formula for forecasting is greatly to be desired.

In a purely utility product such as tires, there seems to exist an unneeded diversity of sizes, types, and quality lines. This has been commented on in the report. Study which would develop definite recommendations for standardization of product would be profitable.

Finally, the subject of crude rubber supply and price with all the implications as to domestic development of substitutes, and the effect on world trade, presents an opportunity for profitable exploration. America is the largest consumer of rubber and as yet is almost entirely dependent upon foreign sources of supply.

APPENDIX II

THE RUBBER INDUSTRY STUDY

General Explanations and Limitations of the Data included in the Rubber Industry Study, secured from the Bureau of Internal Revenue, United States Treasury Department:

(Quotations from letter dated January 27, 1936, received from the Treasury Department.)

"Extreme caution must be exercised in the use of the date. The definitions of the items from which ratios and percentages will be computed must be kept in mind, as well as the difficulty of a comparison over a period of years. The major changes affecting the industrial and other classifications under which the return were tabulated, and the provisions of the revenue acts under which the returns were filed, which have occurred in the years 1926 - 1933, inclusive, are listed below.

"1. The data shown in the tabulations are taken from returns as filed and prior to any revisions or adjustments that may have subsequently been made as a result of an audit by the Bureau of Internal Revenue and without any analysis or adjustment of the underlying charges and credits leading up to the figures on the returns, nor an adjustment of the data reported on the returns to a common method of accounting.

"2. The statistics tabulated from the returns are limited to the information as reported by the taxpayer and include only the data that are available and can be definitely allocated. It frequently happens that (a) the returns are not completely filled in, or (b) if they are filled in, the information is reported in a manner which precludes the possibility of allocating items to the definite minor classifications.

"3. The tabulations for each year include calendar, fiscal and part year returns. The fiscal and part year returns are those for which the greater part of the period falls in that particular calendar year.

"4. The industrial classification is based on the predominant business of nonaffiliated corporations or of groups of affiliated corporations filing a single return. The industrial groups, therefore do not represent corporations engaged purely in the industries in which they are classified, due to the diversified industrial activities of many corporations and especially to affiliated corporations filing consolidated returns, which latter include the income, deductions, assets and liabilities of the subsidiary corporations. If such subsidiary corporations could be segregated, many might fall in industrial divisions other than those in which they are included.

"5. Strict comparability of the corporation income tax data from year to year is not possible. Shifts in the data in the various classifications are due, among other causes, to changes in the predominant business reported in the returns and are accentuated by consolidated returns being filed for concerns formerly filing separate returns and the disintegration of groups of concerns filing consolidated returns.

"6. Changes in the provisions of the revenue acts under which the returns for given years are filed also interfere with a precise

comparability of the data over a period of years. The major changes for the years 1926 to 1933, affecting the data included in these tabulations are as follows:

"(a) Additional rates, first imposed by the Revenue Act of 1932, are applied to the income reported in consolidated returns. These higher rates were probably influential in the reduction of the number of consolidated returns filed in 1932 and 1933.

"(b) The statutory net income is the excess of gross income over deductions as defined by law. Losses sustained during a taxable year not compensated for by insurance or otherwise, are entirely deductible from gross income, except that for years 1932 and 1933 losses from sales or exchanges of stocks and bonds held two years or less (other than bonds issued by a government or political subdivision thereof) are allowed only to the extent of gains from such sales. This limitation on the deduction of losses for 1932 and 1933 does not apply to banks and trust companies. The net loss for prior year (resulting from the operation of any trade or business regularly carried on) which is allowed as a deduction according to law, has not been subtracted from net income in these tabulations because it was not considered a current year loss.

Assets and Liabilities

"7. All items of assets and liabilities, as well as 'Total assets and/or Liabilities,' represent amounts shown in the balance sheets as of the end of the taxable year.

"8. Cash - Includes cash in till and deposits in bank.

"9. Investments, tax-exempt - Includes obligations of States and Territories or minor political subdivisions, securities issued under the Federal Farm Loan Act, and obligations of the United States or its possessions.

"10. Preferred and common stock - Shifts occur between years in the amounts tabulated as 'Common stock' and 'Preferred stock' due both to variations in reporting these data and to the method of tabulation. For balance sheets in which common and preferred stock are not reported separately, the combined amount is tabulated as common stock. For balance sheets with no par stock and reporting capital stock value, the procedure has been as follows: For 1926 - 1931, the amounts were tabulated under 'surplus and undivided profits', for 1932 and 1933, the amounts of no par common stock and preferred stock were tabulated under 'common stock' and preferred stock' respectively. /For balance sheets with no par stock and not reporting capital stock value, the net worth was tabulated under 'surplus and undivided profits.' Your attention is called to the fact that the amount of preferred or common stock contains only the amount issued or outstanding (unissued stock is not included.)

Compiled receipts and statutory deductions

"11. Gross sales - The item 'Gross sales (less returns and allowances)' is really net sales because the amounts of returns and allowances or discounts from the sale price have been deducted from the amount of gross sales. The costs connected with these sales in so far as the data were identifiable and tabulated as 'Cost of goods sold' under 'Statutory

deductions.'

"12. Gross receipts from other operations - The cost of operations has not been deducted.

"13. Dividends received from domestic corporations - The amounts tabulated for consolidated returns in general exclude inter-company dividends.

"14. Interest on tax-exempt obligations - Includes interest on obligations of States and Territories or minor political subdivisions, securities issued under the Federal Farm Loan Act, and obligations of the United States or its possessions.

"15. Total compiled receipts - Includes net profit from sale of capital assets (real estate, stocks, bonds, etc.) but not gross receipts from these items. Excludes nontaxable income other than interest on tax-exempt obligations and dividends on stock of domestic corporations as reported in Schedule L of the return.

"16. Cost of goods sold - This item represents only such amounts as were shown specifically among items on the fact of the return under 'Less cost of goods sold.' Items which may be allocable to 'Cost of goods sold' but which were reported under 'Deductions' on the face of the return are included under 'Miscellaneous deductions.' As an illustration, on the 1933 return the amount tabulated as 'Cost of goods sold' includes salaries and wages only when shown specifically in item 2(c) on the face of the return. Salaries and wages which may be allocable to item 2(c) but which were reported elsewhere on the return are tabulated 'Miscellaneous deductions.'

"17. Taxes paid other than the Federal income tax - does not include amounts tabulated in 'Cost of goods sold.'

"18. Depreciation and depletion - The amounts used in the study are allowable deductions reported on the face of the return. If items of depreciation and depletion are found in 'Cost of goods sold' Cost of operations' or 'Other deductions authorized by law,' they are removed from these categories and tabulated as 'Depreciation' or 'Depletion.' When such removals occur necessary adjustments are made in 'Total cost of goods sold', 'Gross profit from sales,' 'Total cost of operations,' 'Gross profit from operations', and 'Total income.'

"Annual statutory depreciation is predicated on cost or value as of March 1, 1913, of capital assets (not however including land), whereas the balance sheet figures for gross property account represents the amount shown in the financial statement of the corporation, and may not be cost of property, due to adjustments and revaluation up or down. For this reason, it is impossible to determine accurately the percentage of depreciation sustained annually on the basis of the data contained in the tables. The annual depletion is likewise determined by statutory provisions and cannot be related to the current book value of the depletable assets. Also, in this connection, your attention is called to the rulings on depletion which are found in Regulations 77, Income Tax, Revenue

Act of 1932, Articles 221-248, pp. 58-88.

"19. 'Miscellaneous' item - The tabulation of certain items of assets, compiled receipts and statutory deductions has become more complete over a period of years, with the result that substantial amounts have been removed from the 'miscellaneous' groups. Consequently, the 'miscellaneous assets', 'miscellaneous receipts', and 'miscellaneous deductions' are not comparable throughout the years 1926 - 1933. Items which were included in 'Miscellaneous' groups and not tabulated separately in the years shown below are as follows:

Investments, other than tax-exempt	1926-1928
Rents received	1926-1928
Profit from sale of capital assets	1926-1927
Compensation of officers	1926-1927
Bad debts	1926
Loss from sale of capital assets	1926-1929

"20. Cash dividends paid - The amounts tabulated for consolidated returns, in general, exclude inter-company dividends.

"In a study of statistics compiled from income tax returns, it must be borne in mind that returns are filed for tax purposes rather than for economic analysis and the data are taken from returns as originally filed by the taxpayer and prior to an audit by the Bureau. Therefore, in the finer sense it is not possible to secure true indexes or ratios between selected items as representative of given businesses because of these conditions.

"The statistics from the returns truly reflect, in a broad sense and in aggregate, the economic changes from year to year, but in the refined classification by industries, by sources of profits and losses, by assets and liabilities and related items, the above considerations must be taken into account, together with the provisions of the revenue acts affecting income and deductions defined for statutory income tax purposes.

"You are referred to the text in each volume of the Statistics of Income for 1926-1933 for a description of the tabulation of corporation income tax returns in any particular year. Also, your attention is called to the synopsis of Revenue Acts 1909 - 1933, which is contained in the 1933 Statistics of Income. Table D of this synopsis, on pages 220-221, contains the corporation income tax provisions."

OFFICE OF THE NATIONAL RECOVERY ADMINISTRATION
THE DIVISION OF REVIEW

THE WORK OF THE DIVISION OF REVIEW

Executive Order No. 7075, dated June 15, 1935, established the Division of Review of the National Recovery Administration. The pertinent part of the Executive Order reads thus:

> The Division of Review shall assemble, analyze, and report upon the statistical information and records of experience of the operations of the various trades and industries heretofore subject to codes of fair competition, shall study the effects of such codes upon trade, industrial and labor conditions in general, and other related matters, shall make available for the protection and promotion of the public interest an adequate review of the effects of the Administration of Title I of the National Industrial Recovery Act, and the principles and policies put into effect thereunder, and shall otherwise aid the President in carrying out his functions under the said Title.

The study sections set up in the Division of Review covered these areas: industry studies, foreign trade studies, labor studies, trade practice studies, statistical studies, legal studies, administration studies, miscellaneous studies, and the writing of code histories. The materials which were produced by these sections are indicated below.

Except for the Code Histories, all items mentioned below are scheduled to be in mimeographed form by April 1, 1936.

THE CODE HISTORIES

The Code Histories are documented accounts of the formation and administration of the codes. They contain the definition of the industry and the principal products thereof; the classes of members in the industry; the history of code formation including an account of the sponsoring organizations, the conferences, negotiations and hearings which were held, and the activities in connection with obtaining approval of the code; the history of the administration of the code, covering the organization and operation of the code authority, the difficulties encountered in administration, the extent of compliance or non-compliance, and the general success or lack of success of the code; and an analysis of the operation of code provisions dealing with wages, hours, trade practices, and other provisions. These and other matters are canvassed not only in terms of the materials to be found in the files, but also in terms of the experiences of the deputies and others concerned with code formation and administration.

The Code Histories, (including histories of certain NRA units or agencies) are not mimeographed. They are to be turned over to the Department of Commerce in typewritten form. All told, approximately eight hundred and fifty (850) histories will be completed. This number includes all of the approved codes and some of the unapproved codes. (In Work Materials No. 18, Contents of Code Histories, will be found the outline which governed the preparation of Code Histories.)

(In the case of all approved codes and also in the case of some codes not carried to final approval, there are in NRA files further materials on industries. Particularly worthy of mention are the Volumes I, II and III which constitute the material officially submitted to the President in support of the recommendation for approval of each code. These volumes

set forth the origination of the code, the sponsoring group, the evidence advanced to support the proposal, the report of the Division of Research and Planning on the industry, the recommendations of the various Advisory Boards, certain types of official correspondence, the transcript of the formal hearing, and other pertinent matter. There is also much official information relating to amendments, interpretations, exemptions, and other rulings. The materials mentioned in this paragraph were of course not a part of the work of the Division of Review.)

THE WORK MATERIALS SERIES

In the work of the Division of Review a considerable number of studies and compilations of data (other than those noted below in the Evidence Studies Series and the Statistical Materials Series) have been made. These are listed below, grouped according to the character of the material. (In Work Materials No. 17, Tentative Outlines and Summaries of Studies in Process, these materials are fully described).

Industry Studies

Automobile Industry, An Economic Survey of
Bituminous Coal Industry under Free Competition and Code Regulation, Economic Survey of
Construction Industry and NRA Construction Codes, the
Electrical Manufacturing Industry, The
Fertilizer Industry, The
Fishery Industry and the Fishery Codes
Fishermen and Fishing Craft, Earnings of
Foreign Trade under the National Industrial Recovery Act
  Part A - Competitive Position of the United States in International Trade 1927-29 through 1934.
  Part B - Section 3 (e) of NIRA and its administration.
  Part C - Imports and Importing under NRA Codes.
  Part D - Exports and Exporting under NRA Codes.
Forest Products Industries, Foreign Trade Study of the
Iron and Steel Industry, The
Knitting Industries, The
Leather and Shoe Industries, The
Lumber and Timber Products Industry, Economic Problems of the
Men's Clothing Industry, The
Millinery Industry, The
Motion Picture Industry, The
Migration of Industry, The: The Shift of Twenty-Five Needle Trades From New York State, 1926 to 1934
National Income, A study of,
Paper Industry, The
Production, Prices, Employment and Payrolls in Industry, Agriculture and Railway Transportation, January 1923, to date
Retail Trades Study, The
Rubber Industry Study, The
Statistical Background of NRA
Textile Industry in the United Kingdom, France, Germany, Italy, and Japan
Textile Yarns and Fabrics
Tobacco Industry, The
Wholesale Trades Study, The
9675.

Women's Apparel Industry, Some Aspects of the

Trade Practice Studies

Commodities, Information Concerning: A Study of NRA and Related Experiences in Control
Distribution, Manufacturers' Control of: A Study of Trade Practice Provisions in Selected NRA Codes
Design Piracy: The Problem and Its Treatment Under NRA Codes
Electrical Mfg. Industry: Price Filing Study
Fertilizer Industry: Price Filing Study
Geographical Price Relations Under Codes of Fair Competition, Control of
Minimum Price Regulation Under Codes of Fair Competition
Multiple Basing Point System in the Lime Industry: Operation of the
Price Control in the Coffee Industry
Price Filing Under NRA Codes
Production Control Under NRA Codes, Some Aspects of,
Resale Price Maintenance Legislation in the United States
Retail Price Cutting, Restriction of, with special Emphasis on The Drug Industry.
Trade Practice Rules of The Federal Trade Commission (1914-1936): A classification for comparison with Trade Practice Provisions of NRA Codes.

Labor Studies

Employment, Payrolls, Hours, and Wages in 115 Selected Code Industries 1933-1935
Hours and Wages in American Industry
Labor Program Under the National Industrial Recovery Act, The
  Part A. Introduction
  Part B. Control of Hours and Reemployment
  Part C. Control of Wages
  Part D. Control of Other Conditions of Employment
  Part E. Section 7(a) of the Recovery Act
PRA Census of Employment, June, October,1933
Puerto Rico Needlework, Homeworkers Survey

Administrative Studies

Administrative and Legal Aspects of Stays, Exemptions and Exceptions, Code Amendments, Conditional Orders of Approval
Administrative Interpretations of NRA Codes
Administrative Law and Procedure under the NIRA
Agreements Under Sections 4(a) and 7(b) of the NIRA
Approved Codes in Industry Groups, Classification of
Basic Code, the -- (Administrative Order X-61)
Code Authorities and Their Part in the Administration of the NIRA
  Part A. Introduction
  Part B. Nature, Composition and Organization of Code Authorities
  Part C. Activities of the Code Authorities
  Part D. Code Authority Finances
  Part C. Summary and Evaluation
9675.

Code Compliance Activities of the NRA
Code Making Program of the NRA in the Territories, The
Code Provisions and Related Subjects, Policy Statements Concerning
Content of NIRA Administrative Legislation
  Part A. Executive and Administrative Orders
  Part B. Labor Provisions in the Codes
  Part C. Trade Practice Provisions in the Codes
  Part D. Administrative Provisions in the Codes
  Part E. Agreements under Sections 4(a) and 7(b)
  Part F. A Type Case: The Cotton Textile Code
Labels Under NRA, A Study of
Model Code and Model Provisions for Codes, Development of
National Recovery Administration, The: A Review and Evaluation of its Organization and Activities
NRA Insignia
President's Reemployment Agreement, The
President's Reemployment Agreement, Substitutions in Connection with the
Prison Labor Problem under NRA and the Prison Compact, The
Problems of Administration in the Overlapping of Code Definitions of Industries and Trades, Multiple Code Coverage, Classifying Individual Members of Industries and Trades
Relationship of NRA to Government Contracts and Contracts Involving the Use of Government Funds
Relationship of NRA with other Federal Agencies
Relationship of NRA with States and Muncipalities
Sheltered Workshops Under NRA
Uncodified Industries: A Study of Factors Limiting the Code Making Program

Legal Studies

Anti-Trust Laws and Unfair Competition
Collective Bargaining Agreements, the Right of Individual Employees to Enforce Provisions of
ommerce Clause, Possible Federal Regulation of the Employer-Employee Relationship Under the
Delegation of Power, Certain Phases of the Principle of, with Reference to Federal Industrial Regulatory Legislation
Enforcement, Extra-Judicial Methods of
Federal Regulation through the Joint Employment of the Power of Taxation and the Spending Power
Government Contract Provisions as a Means of Establishing Proper Econ mic Standards, Legal Memorandum on Possibility of
Intrastate Activities Which so Affect Interstate Commerce as to Bring them Under the Commerce Clause, Cases on
Legislative Possibilities of the State Constitutions
Post Office and Post Road Power -- Can it be Used as a Means of Federal Industrial Regulation?
State Recovery Legislation in Aid of Federal Recovery Legislation History and Analysis
Tariff Rates to Secure Proper Standards of Wages and Hours, the Possibility of Variation in
Trade Practices and the Anti-Trust Laws
Treaty Making Power of the United States
War Power, Can it be Used as a Means of Federal Regulation of Child Labor?
9675.

THE EVIDENCE STUDIES SERIES

The Evidence Studies were originally undertaken to gather material for pending court cases. After the Schechter decision the project was continued in order to assemble data for use in connection with the studies of the Division of Review. The data are particularly concerned with the nature, size and operations of the industry; and with the relation of the industry to interstate commerce. The industries covered by the Evidence Studies account for more than one-half of the total number of workers under codes. The list of these studies follows:

Automobile Manufacturing Industry
Automotive Parts and Equipment Industry
Baking Industry
Boot and Shoe Manufacturing Industry
Bottled Soft Drink Industry
Builders' Supplies Industry
Canning Industry
Chemical Manufacturing Industry
Cigar Manufacturing Industry
Coat and Suit Industry
Construction Industry
Cotton Garment Industry
Dress Manufacturing Industry
Electrical Contracting Industry
Electrical Manufacturing Industry
Fabricated Metal Products Mfg. Industry and Metal Finishing and Metal Coating Industry
Fishery Industry
Furniture Manufacturing Industry
General Contractors Industry
General Contractors Industry
Graphic Arts Industry
Graphic Arts Industry
Gray Iron Foundry Industry
Hosiery Industry
Infant's and Children's Wear Industry
Iron and Steel Industry
Leather Industry
Lumber and Timber Products Industry
Mason Contractors Industry
Men's Clothing Industry
Motion Picture Industry
Motor Vehicle Retailing Trade
Needlework Industry of Puerto Rico
Painting and Paperhanging Industry
Photo Engraving Industry
Plumbing Contracting Industry
Retail Lumber Industry
Retail Trade Industry
Retail Tire and Battery Trade Industry
Rubber Manufacturing Industry
Rubber Tire Manufacturing Industry
Shipbuilding Industry
Silk Textile Industry
Structural Clay Products Industry
Throwing Industry
Trucking Industry
Waste Materials Industry
Wholesale and Retail Food Industry
Waste Materials Industry
Wholesale and Retail Food Industry
Wholesale Fresh Fruit and Vegetable Industry
Wool Textile Industry

THE STATISTICAL MATERIALS SERIES

This series is supplementary to the Evidence Studies Series. The reports include data on establishments, firms, employment, payrolls, wages, hours, production capacities, shipments, sales, consumption, stocks, prices, material costs, failures, exports and imports. They also include notes on the principal qualifications that should be observed in using the data, the technical methods employed, and the applicability of the material to the study of the industries concerned. The following numbers appear in the series:
9675.

Asphalt Shingle and Roofing Industry
Business Furniture
Candy Manufacturing Industry
Carpet and Rug Industry
Cement Industry
Cleaning and Dyeing Trade
Coffee Industry
Copper and Brass Mill Products Industry
Cotton Textile Industry
Electrical Manufacturing Industry
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Fertilizer Industry
Funeral Supply Industry
Glass Container Industry
Ice Manufacturing Industry
Knitted Outerwear Industry
Paint, Varnish, and Lacquer, Mfg. Industry
Plumbing Fixtures Industry
Rayon and Synthetic Yarn Producing Industry
Salt Producing Industry